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No. 92-1012

IN THE
Supreme Court of the United States
OCTOBER TERM, 1992

SIMPSON PAPER (VERMONT) COMPANY,
Petitioner
v.
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
and SIERRA CLUB

Petition for a Writ of Certiorari to the Supreme Court of the State of Vermont

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PETITION FOR A WRIT OF CERTIORARI

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QUESTIONS PRESENTED

1. Whether the State of Vermont, through its Department of Environmental Conservation, has exceeded its authority under § 401 of the Clean Water Act ("CWA"), 33 U.S.C. § 1341, by conditioning a water quality certification for a federally licensed hydroelectric project on scenic aesthetic and recreation requirements wholly unrelated to the protection of water quality.

2. Whether § 401 of the CWA allows the states unlimited authority to condition the operation of projects subject to the Federal Power Act ("FPA") on certification requirements not related to water quality, and thereby repeals by implication the comprehensive regulatory scheme established by the FPA for federal licensing of hydroelectric projects.

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PETITION FOR A WRIT OF CERTIORARI

The Simpson Paper (Vermont) Company (hereinafter "Simpson") respectfully petitions for a writ of certiorari to review the judgment of the Supreme Court of the State of Vermont in this case.[1]

OPINIONS BELOW

The opinion of the Supreme Court of the State of Vermont ("Vermont Supreme Court"), No. 91-530, issued September 14, 1992 (App. 1a-4a); the opinion of the Vermont Superior Court, No. S473-89 WnCa, issued October 2, 1991 (App. 5a-18a); and the Water Quality Certification issued by the Vermont Department of En-

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[1] Simpson Paper (Vermont) Company is a wholly owned subsidiary of Simpson Paper Company, which is a wholly owned subsidiary of Simpson Investment Company.

vironmental Conservation ("Vermont DEC"), issued July 28, 1989 (App. 19a-28a), are not officially reported.

JURISDICTION

The judgment of the Vermont Supreme Court was entered on September 14, 1992. App. 1a. The jurisdiction of this Court is invoked under 28 U.S.C. § 1257.

STATUTES INVOLVED

Sections 301, 302, 303, 306, 307, 401 and 510 of the Clean Water Act, also known as the Federal Water Pollution Control Act, 33 U.S.C. §§ 1311, 1312, 1313, 1316, 1317, 1341 and 1370; and §§ 4(e), 10(a)(1), 10(j) and 15(a)(2)-(3) of the Federal Power Act, 16 U.S.C. §§ 797(e), 803(a)(1), 803(j) and 808(a)(2)-(3), are reproduced in Appendix D.

STATEMENT

This case involves an attempt by the State of Vermont to use its water quality certification authority, delegated to it pursuant to § 401 of the Clean Water Act ("CWA"), 33 U.S.C. § 1341, to impose far reaching operational conditions—unrelated to water quality—on the continued existence of a hydroelectric project licensed by the Federal Energy Regulatory Commission ("FERC"). State courts are in conflict on this issue. *See infra* pp. 19-21.

The Vermont DEC issued a § 401 water quality certification in connection with Simpson's application to FERC for relicensing of its Gilman Hydroelectric Project ("Gilman Project") on the Connecticut River. The project provides power to Simpson's Centennial Paper Mill, located in Gilman, Vermont. The certification contained a number of conditions, including requirements for upstream and downstream fish passage facilities and a requirement that a minimum flow of 210 cubic feet per second ("cfs") be spilled over the dam continuously

from June 1 to October 15 each year. The Vermont DEC based the spill requirement both on purported water quality concerns and on a desire to enhance scenic aesthetics for persons engaged in recreation at the site. The Vermont Supreme Court upheld the DEC's spill condition, solely on the ground that "aesthetics" and "recreation"—in and of themselves—were appropriate grounds on which to justify the spill condition under § 401.

Under § 401(d), a state water quality certification becomes a condition to any FERC hydroelectric license (or other federal license or permit). FERC, and the federal courts, have no authority to review the certification's requirements even if they exceed the scope of the state's delegated authority under § 401. The licensee's remedy lies only in the state courts and ultimately this Court.

The Vermont Supreme Court's holding is not within the scope of § 401. Its ruling is contradicted by the plain language and the purposes of that provision. Vermont's broad construction completely undermines the Federal Power Act's ("FPA's") scheme for federal licensing of hydroelectric projects. It would supplant FERC's comprehensive planning and licensing responsibilities with respect to new and existing projects, including the nearly 200 existing projects currently in the FERC relicensing process, by allowing the 50 states virtually unlimited authority to restrict operation of hydroelectric projects for reasons not directly linked to water quality. Congress did not intend § 401 to undo the basic scheme of the FPA by authorizing unrestrained intervention by the states into the licensing process. *California v. FERC*, 495 U.S. 490, *reh'g denied*, 110 S.Ct. 3304 (1990); *First Iowa Hydro-Elec. Coop. v. FPC*, 328 U.S. 152 (1946).

A. Statutory and Regulatory Background

1. *The Federal Power Act*

Under the FPA, FERC has exclusive authority to issue licenses for the vast majority of new and existing hydroelectric projects. FPA §§ 4(e), 23(b), 16 U.S.C. §§ 797 (e), 817 (1988).[2] This authority includes original licenses and license renewals, known as "new licenses," which must be obtained when the original license term expires. FPA § 15, 16 U.S.C. § 808 (1988). Between 1991 and the year 2000, FERC anticipates the relicensing of about 320 hydropower projects, or fully 17 percent of the facilities currently under its jurisdiction.[3] Between 1990 and 1993 alone, the licenses for nearly 200 hydropower plants are due to expire, representing over 2,200 MW of electric generating capacity.[4] Most of these are the subject of applications now pending at FERC.[5]

The FPA requires that projects licensed by FERC be "best adapted to a comprehensive plan" for improving or developing the waterway, taking into account such potentially competing factors as needed for the project's power, energy conservation, navigation, irrigation, flood control, water supply, fish and wildlife protection, recrea-

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[2] G. Douglas Essy, *Hydroelectric Facilities Licensing—A FERC Jurisdictional Primer*, 1 Energy L.J. 67, 67-68 (1980).

[3] Federal Energy Regulatory Commission, *Hydroelectric Project Relicensing Handbook* 1 (April 1990); *Hydropower Disputes: A Battle of the Endangered Salmon*, Cogeneration & Resource Recovery, May/June 1991, at 22, 24 ("More than half of these licenses will expire in 1993.").

[4] Electric Power Research Institute, *Lessons Learned in Hydro Relicensing (1984-1989): Trends, Costs, and Recommendations* 2-1 (May 1991); Richard T. Hunt & Judith Mohsberg, *Relicensing Entanglements*, Independent Energy, January 1991, at 48.

[5] *Special Supplement 1992 Edition*, Hydrowire, §§ 7-9, August 1992.

tional opportunities, and other aspects of environmental quality. FPA §§ 4(e), 10(a)(1), 16 U.S.C. §§ 797(e), 803(a)(1) (1988).

Section 15 of the FPA sets forth additional considerations which apply to existing licensed projects seeking a new license. These include the cost and availability of alternative sources of power, among others. They also include, in the case of an applicant such as Simpson (which uses the power for its own industrial facility), the effects of the project on the operation and efficiency of the industrial facility, its workers, and the community. FPA § 15(a)(2)-(3), 16 U.S.C. § 808(a)(2)-(3) (1988).

Congress' intent in enacting the Federal Water Power Act of 1920, the FPA's predecessor statute, was to secure "a comprehensive development of natural resources". *First Iowa Hydro-Elec. Coop. v. FPC*, 328 U.S. 152, 181 (1946). The Court has observed that the key to that rational development is centralization of licensing authority in one federal administrative body which would exercise a consistent and comprehensive planning role. *Id.* at 164, 182. Absent express modification by federal legislation of this pervasive jurisdiction over licensing of hydroelectric projects, FERC's jurisdiction is exclusive. *FPC v. Oregon*, 349 U.S. 435, 446 (1955). These principles recently were reconfirmed in *California v. FERC*, 495 U.S. 490 (1990).

Before issuing a license under the FPA, FERC must weigh potential environmental impacts of a proposed project—or, in the case of a license renewal, impacts of continued operation. In addition, under its regulations implementing the National Environmental Policy Act of 1969,[6] FERC assesses potential impacts on water quality, fish, wildlife and botanical resources, historic and archeological resources, recreational resources, land manage-

[6] Pub. L. No. 91-190, 83 Stat. 852 (42 U.S.C. §§ 4321-4347 (1988)).

ment, and aesthetics.[7] FERC also must include in licenses conditions for the protection and enhancement of fish and wildlife, and must adopt recommendations of federal and state fish and wildlife agencies, unless it expressly finds them to be inconsistent with the purposes and requirements of the FPA. FPA § 10(j), 16 U.S.C. § 803(j).

2. *The Clean Water Act*

a. *The § 401 Certification Requirement*

Section 401(a)(1) of the CWA, 33 U.S.C. § 1341(a)(1) (1988), requires an applicant for a federal license or permit for any activity which may result in a discharge into navigable waters of the United States to obtain a certification (or waiver thereof) from the state in which the discharge originates. The state must certify that the discharge will comply with the sections of the CWA specifically enumerated in § 401(a).[8] Each of the enumerated sections addresses discharges of pollutants. Sections 301 and 302 set standards for effluent limitations. Section 303 governs state water quality standards and implementation plans. Section 306 sets national standards of performance for the control of discharges. Section 307 sets effluent pretreatment standards and prohibits the discharge of certain effluents.

Section 401(d) of the CWA, 33 U.S.C. 1341(d) (1988), confines a state certification issued pursuant to § 401(a)(1) to water quality factors. It directs that state certifications shall impose limitations and monitoring requirements necessary to ensure compliance with:

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[7] 18 CFR §§ 380.1-380.14 (1982). The types of information FERC must consider are set forth in FERC's regulations establishing requirements for license applications. 18 CFR Parts 4, 16. *See* 18 CFR § 380.3(c)(1).

[8] These are §§ 301, 302, 303, 306, and 307, codified respectively at 33 U.S.C. §§ 1311, 1312, 1313, 1316, and 1317.

> any applicable effluent limitations and other limitations, under section [301] or [302] of this title, standard of performance under section [306] of this title, or prohibition, effluent standard, or pretreatment standard under section [307] of this title, and with any other appropriate requirement of State law set forth in such certification . . . .

Under § 401(d), any such limitations and requirements then become conditions on the FERC license or other federal permit for the project. FERC has ruled that it has no authority to reject or even revise conditions in a state water quality certification even if they are outside the scope of § 401, and that only the state courts may review such certifications.[9]

b. *The EPA's Role in Establishing Water Quality Standards for § 401 Certifications*

One of § 401(a)'s specifically enumerated sections is section 303. Section 303 requires a state to establish water quality standards to be approved by the United States Environmental Protection Agency ("EPA"). EPA requires the state standards to meet the minimum applicable requirements set forth in the CWA, including but not limited to §§ 301, 302, 306 and 307. EPA's parameters for state water quality standards have as their purpose "to protect public health or welfare, enhance the quality of water and serve the purposes of the Act. . . ."[10] 40 CFR § 131.2 (1992). EPA's definition

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[9] *Town of Summersville*, 60 FERC ¶ 61,291 at 61,990 (1992), rehearing granted for purpose of further consideration; *Carex Hydro*, 52 FERC ¶ 61,216 at 61,770-771 (1990); *Central Maine Power Co.*, 52 FERC ¶ 61,033 at 61,172 (1990).

[10] 40 CFR § 131.2 (1992) also states EPA's view of the purposes of the CWA:

> States adopt water quality standards to protect public health or welfare, enhance the quality of water and serve the purposes of the [CWA]. 'Serve the purposes of the [CWA]' (as

of a water quality standard states: "A water quality standard defines the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses." 40 CFR 131.2 (1992). This definition results in a two-step format for state water quality standards. The first step requires the state to designate the uses desired for a particular body of water. The second step involves establishment of "criteria"—objective, measurable standards—the implementation of which should ensure attainment of water quality sufficient to achieve and protect the designated uses.

The first-step regulation, 40 CFR § 131.6(a) (1992), directs a state to submit for EPA approval water quality standards which establish "use designations" pursuant to CWA § 303(c)(2). The second-step regulation, 40 CFR § 131.6(c) (1992), directs that the state's standards must include "[w]ater quality criteria sufficient to protect the designated uses." The criteria are defined as "elements of State water quality standards, expressed as constituent concentrations, levels, or narrative statements, representing a quality of water that supports a particular use. When criteria are met, water quality will generally protect the designated use." 40 CFR 131.3(b) (1992). These criteria must be supported by information sufficient to ensure the "adequacy of the scientific basis of the standards." 40 CFR § 131.6(f) (1992).

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defined in sections 101(a)(2) and 303(c) of the Act) means that water quality standards should, wherever attainable, provide water quality for the protection and propagation of fish, shellfish, and wildlife and for recreation in and on the water and take into consideration their [sic] use and value of public water supplies, propagation of fish, shellfish, and wildlife, recreation in and on the water, and agricultural, industrial, and other purposes including navigation.

c. *Vermont's Role Under §§ 401 and 303*

The Vermont DEC determines whether to issue § 401 certifications in that state. Vt. Stat. Ann. tit. 10, § 1004 (Supp. 1992). In accordance with CWA § 303, Vermont's Water Resources Control Board has established "Vermont Water Quality Standards" which were approved by the EPA and became effective January 8, 1987[11] pursuant to the Vermont Water Pollution Control Act, Vt. Stat. Ann. tit. 10, Chapter 47. This statute requires that Vermont's water quality standards conform to EPA's requirements concerning the scope and structure of state water quality standards under § 303 (*i.e.*, 40 CFR Part 131).[12]

In accordance with EPA's requirements, the state classifies its waters according to their suitability for particular uses. Vt. Stat. Ann. tit. 10, § 1252 (Supp. 1992).[13] Vermont's Water Quality Standards ("VWQS") provide

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[11] The 1987 Vermont Water Quality Standards were in effect at the time the Section 401 certification for the Gilman Project was issued. They subsequently have been revised.

[12] Vt. Stat. Ann. tit. 10, § 1251a(a) (Supp. 1992) effectively requires that Vermont's Water Quality Standards, as promulgated by the Water Resources Board, be "approvable" under Public Law 92-500 (the 1972 Amendments to the CWA) and thus approvable pursuant to CWA § 303.

[13] Section 1252(a) provides:

> (a) The state adopts, for the purposes of classifying its waters, the following classes and definitions thereof:
>
> Class A. Suitable for public water supply with disinfection when necessary. Character uniformly excellent.
>
> Class B. Suitable for bathing and recreation, irrigation and agricultural uses; good fish habitat; good aesthetic value; acceptable for public water supply with filtration and disinfection.
>
> Class C. Suitable for recreational boating, irrigation of crops not used for consumption without cooking; habitat for wildlife and for common food and game fishes indigenous to the region; and such industrial uses as are consistent with other class "C" uses.

"management objectives" setting forth the State's desired values and uses for the different classifications.[14]

The VWQS further include water quality "criteria" required by EPA that provide objective standards for regulating levels of pollutant discharges in order to achieve the "uses" and "values" set forth in the Standards. Vermont has adopted both general water quality criteria, which pertain to all waters, and specific criteria which vary depending on the classification of the waters.[15] The criteria look to scientifically ascertainable elements. For example, for Class B and Class C waters (the types at issue here), they specify levels of pH (maintain between values of 6.5 and 8.0); fecal coliform (not more than 200 organisms per 100 milliliters); and color (not more than 25 standard color units), among others. Aesthetic factors linked to measurable water quality—such as "color," or "taste and odor"—are included within the criteria. Non-water quality factors such as scenic aesthetic values are not.

B. The Gilman Hydroelectric Project

The Gilman Project is 4.85 MW run-of-river[16] hydroelectric facility located at Gilman, Vermont on the Connecticut River, the navigable interstate boundary water

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[14] *See* VWQS, Sections 3-02 to 3-04.

[15] General water quality criteria are established for "Dissolved Oxygen," "Temperature," "Nutrients," "Aquatic Habitat," "Sludge deposits or solid refuse," and "Settleable solids, floating solids, oil, grease, scum, or total suspended solids." VWQS Section 3-01. Specific water quality criteria are established for "Ph," "Turbidity," "Fecal Coliform," "Color," and "Taste and Odor." VWQS Sections 3-02 to 3-04.

[16] "Run-of-river" facility means that the Project discharges water at the same rate that water enters the Project's impoundment upstream of the dam. Although the Project has a small dam and impoundment, it does not operate in a store-and-release cycle mode. App. 20a.

between Vermont and New Hampshire.[17] App. 19a-20a; *Gilman Paper Co.*, 33 F.P.C. 1021 (1965). Vermont classifies the waters above the dam as "Class B," which includes "good aesthetic value," and the waters below the dam as "Class C," which does not include aesthetic value. App. 11a, 20a; *see supra* note 13.

Simpson owns and operates the facility, which provides power for Simpson's adjacent Centennial Paper Mill. The Project dam, which spans the river from the New Hampshire side to the power house and is about 300 feet wide, is located entirely in New Hampshire waters.[18] Spills are regulated by a hydraulic-controlled crest gate approximately 25 feet in width which is part of the dam. The powerhouse, which is next to the dam, straddles the Vermont-New Hampshire boundary. App. 19a. The paper mill is in Vermont.[19]

The Gilman Project produces about 26 million kilowatt hours per year on an average annual basis,[20] which is about 41 percent of the paper mill's electric requirements.[21] Any additional electric energy (not otherwise supplied by Simpson's onsite wood-waste cogeneration facility) is purchased from the New England Power Company, which in turn purchases excess energy from the Gilman Project when Simpson's mill is down for maintenance or repair.[22]

Paper making is an energy intensive process. The electricity which the Project supplies to the mill is an

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[17] The boundary between Vermont and New Hampshire is set at the historic low water mark on the Vermont side. *Vermont v. New Hampshire*, 289 U.S. 593, 619 (1933).

[18] *See The Gilman Project, FERC No. 2392, Application for New License, Major Water Power Project, Five Megawatts or Less*, December 1988 ("1988 Relicensing Application"), at A-1.

[19] *Id.*

[20] *Id.* at 1.

[21] *Id.* at 7.

[22] *Id.* at 4.

important factor enabling the mill to survive in the highly competitive paper industry.[23] The power produced by the Project results in substantial cost savings for the mill, which otherwise would have to purchase more electricity from the local utility.[24] When the Project turbines are being used to full capacity, any water spilled over the crest gate is unavailable for power productions except at higher flows. Thus, the DEC's spill requirement would limit power production and force Simpson to purchase additional commercial power.

The Federal Power Commission issued an initial license for the Project to Simpson's predecessor in 1965.[25] That license expired in 1990. In December 1988 Simpson's predecessor applied to FERC for a new license under FPA § 15.[26] FERC has deferred issuance of the new license pending Simpson's appeal of the Vermont § 401 certification.

C. Proceedings Below

1. *Administrative Action*

In anticipation of the relicensing application to FERC, Simpson's predecessor in August 1988 filed an application

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[23] *Id.* at 1-2.

[24] *Id.* at 4.

[25] *Gilman Paper Co.*, 33 FPC 1021 (1965). The initial license was issued to the Gilman Paper Company in 1965, retroactively effective to 1941, although a dam and mill were first constructed at the site about 1900. It sold the project to Georgia-Pacific Corporation, *Gilman Paper Co.*, 43 FPC 139 (1970), which owned the Gilman Project when this litigation was initiated. Simpson subsequently purchased the Project and FERC transferred the license to Simpson. *Georgia-Pacific Corp.*, 59 FERC ¶ 62,350 (1992). For purposes of this Petition, all further references to Simpson will include both Simpson and Georgia-Pacific Corporation.

[26] *See The Gilman Project, FERC No. 2392, Application for New License, Major Water Power Project, Five Megawatts or Less*, December 1988.

for § 401 certification with the Vermont DEC.[27] Prior to the filing, the DEC had advised Simpson's predecessor that it intended to impose a continuous spill requirement.[28] After a preliminary meeting with counsel for the licensee, the Commissioner of the Vermont DEC expressed concern in a memorandum to the DEC's director that the scope of the state's certification authority under 401 might limit the DEC's ability to extract concessions:

> [T]he policy issue before us is how much to extract from Georgia Pacific [now Simpson] during relicensing. I think we have some leverage through the 401 certificate, but the law on the scope of that authority has not been settled. I would hope we could get what we want, or at least what we can fairly expect, without having to litigate that issue, which could be a major battle of national importance.[29]

The DEC had indicated a concern over dissolved oxygen ("DO") levels in the river reach below the dam during low flow periods. The licensee attempted to address this concern by conducting studies of DO above and below the dam and by drafting a water quality management plan for monitoring DO and responding to low levels through controlled spillage.[30] However, on July 28, 1989,

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[27] *See The Gilman Project, FERC No. 2392, Application for Section 401 Water Quality Certification*, August 1988. The Gilman Centennial Mill also received a renewal of its discharge permit under section 402 of the CWA from the Vermont Agency for Natural Resources on March 15, 1989. The section 402 permit regulates wastewater discharges from the paper making process.

[28] Letter of April 23, 1987 from Thomas Willard, Director of DEC, to William Ernst, then General Manager of Simpson's predecessor.

[29] Memorandum of April 25, 1988 from Patrick A. Parenteau, DEC Commissioner, to David L. Clough, Director, DEC Water Quality Division.

[30] The first draft of a management plan was submitted to DEC by letter of January 16, 1987 from Mr. Ernst to Mr. Willard. The

before Simpson had finished and submitted a final management plan, the DEC issued its § 401 certification.

The certification contained several conditions. These included, among others, requirements for upstream and downstream fish passages,[31] and a condition requiring the licensee to release 210 cubic feet per second ("cfs") in a continuous flow over the dam from June 1 through October 15 of each year. The DEC maintained that during critical low flow conditions this 210 cfs continuous spill requirement was required to insure minimum levels of DO in the river at a potential DO "sag" some miles downstream. App. 21a-24a. The DEC also determined that the spill would enhance aesthetics and recreational use of the river reach. App. 25a-26a. It made no finding, however, that the Gilman Project affects any measurable aesthetic properties of the water itself, or that the Project's "discharge" contains pollutants which affect aesthetic values or recreational uses.

In the meantime, New Hampshire, in whose waters the mandatory spill actually would occur (since the crest gate and dam are in that state), issued a § 401 certification finding that the Project met that state's water quality standards in all respects. New Hampshire's certification did not contain a spill condition or any other operating restriction.[32] At the time, New Hampshire's

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DEC stated that it would not consider a water quality management plan. Letter of April 23, 1987 from Mr. Willard to Mr. Ernst.

[31] While Simpson believed that the fish passage conditions imposed by the DEC also were beyond the scope of the DEC's section 401 authority, it chose not to contest them because it had already proposed installation of a downstream fish passage in the FERC relicensing proceeding in an attempt to anticipate FERC's requirements under § 10(j) of the FPA. 1988 Relicensing Application at E2-5 to E2-6.

[32] *Water Quality Certificate (Pursuant to Section 401 of The Clean Water Act): Gilman Project—FERC No. 2392*, N.H. Dept. of Environmental Services, Oct. 22, 1988.

standards concerning DO in the reach below the dam were more stringent than Vermont's.[33]

2. *Judicial Proceedings*

Simpson appealed the 210 cfs continuous spill condition to the Vermont Superior Court for Washington County, contending that the continuous spill condition was not needed to ensure water quality. Simpson also challenged the condition as being beyond the scope of state authority under CWA § 401.

The Superior Court affirmed the continuous spill requirement on two grounds: in order to guarantee compliance with DO levels below the dam, and to maintain scenic aesthetics. App. 5a-18a. It deferred to the DEC's conclusion that "the specified continuous flow was required to safeguard aesthetic appeal of the river to the numerous persons who use the river for recreation during the specified time period." According to the court, "[t]he aesthetic determination forms a strong independent basis upon which to uphold" the continuous spill requirement. App. 14a. However, the court did not cite any objective criteria or specific evidence related to the visual "aesthetic" qualities of the river which would be protected by the continuous spill condition, or even describe what the actual scenic aesthetic impact of the spill might be. Its conclusion appeared to be predicated on the notion that general improvement of the scenic vista at the Project site, as opposed to the aesthetic quality of the water itself, was a permissible justification for the spill condition under CWA § 401. App. 3a-4a.

Simpson appealed the Superior Court's judgment to the Vermont Supreme Court, contending, *inter alia*, that it was beyond the DEC's authority under CWA § 401 to base a spillage requirement on aesthetic and recreational

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[33] *Compare*, VWQS, Section 3-01.1.a (1987) and New Hampshire Water Quality Management Plan, Connecticut River Basin, New Hampshire Water Supply and Pollution Control Commission (1979).

goals unsupported by objective evidence. *Appellant's Brief*, Docket No. 91-530, pp. 46-49, March 27, 1992. Simpson also appealed on the grounds that there was no foundation for the spill requirement in terms of DO-related water quality factors. *Id.*, pp. 33-46. Simpson showed that the spill condition imposed substantial economic costs—estimated at $120,000 per year[34]—without any basis in objective water quality standards.

The Vermont Supreme Court, in a *per curiam* entry order, affirmed the Superior Court's decision. App. 1a-4a. In so doing, it did not discuss whether the spill was necessary to maintain DO standards, or make a specific ruling on that issue. Thus, without even addressing the DO issue, the court affirmed on the sole ground that aesthetics and recreation were an appropriate basis for the spill condition under Vermont's Water Quality Standards and CWA § 401.[35]

REASONS FOR GRANTING THE PETITION

A. This Court Should Resolve The Important Federal Question Concerning The Scope Of A State's Certification Authority Under § 401 Of The Clean Water Act

As this case was decided by the Vermont Supreme Court, it squarely presents the issue whether § 401 of the Clean Water Act authorizes a state to impose conditions on a FERC license for a hydroelectric project based, not on ascertainable water quality criteria, but on broader state goals such as enhancing scenic aesthetics. The Vermont Supreme Court in this case did not determine whether the DEC's continuous spill condition was necessary to correct an alleged DO deficiency, nor did it

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[34] The $120,000 figure is contained in a letter submitted to the Court after oral argument in response to a question from the bench. The letter was dated May 20, 1992.

[35] The court also stated without explanation that the spill condition would promote "ease of administration and monitoring." App. 3a.

so much as mention DO. It affirmed solely on the basis that the Vermont Water Quality Standards expressly identify recreation and aesthetics as designated uses and values for Class B waters,[36] and that the spill condition is therefore within the scope of the State's regulatory authority under § 401.[37]

If § 401 is as broad as Vermont contends, then a state may impose *any* condition on a FERC licensed project which *in any way* promotes recreation, aesthetics, or other state designated "uses" or "values," simply by incorporating the condition in its water quality certification. Indeed, under Vermont's reading, a state could effectively deny a § 401 certification on the basis of recreational, aesthetic, fish and wildlife, or other concerns that do not involve actual water quality, simply by imposing conditions so onerous as to render continued operation of the project uneconomic.[38]

The FERC has recognized that "[i]t is possible for a state certifying agency to, in effect, veto a project by denying a § 401 certification request and, if challenged, have that decision sustained by state courts."[39] It has also asserted that it does not "believe that a state should

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[36] The decision is inaccurate in its reliance on Class B requirements since the waters below the dam are Class C, which does *not* include "good aesthetic value" among its elements. *See supra* VWQS section 3-04; App. 11a, 20a.

[37] It must therefore be presumed that the Vermont Supreme Court's decision does not rest on an independent alternative state ground based on the DO determinations of the lower state tribunals. *Michigan v. Long*, 463 U.S. 1032, 1042 (1983); *Coleman v. Thompson*, —— U.S. ——, 111 S.Ct. 2546, 2556-58 (1991).

[38] Section 401(d) provides that the limitations and requirements in the state water quality certification "shall become a condition on any Federal license or permit subject to the provisions of this section."

[39] *Central Maine Power Co.*, 52 FERC ¶ 61,033 at 61,172-73 (1990).

be permitted to use its water quality certification authority to impose conditions that are unrelated to water quality and that conflict with the Commission's licensing decisions." [40] Because "review of the appropriateness of water quality certification conditions is the purview of state courts," [41] review by this Court is Simpson's only remedy.

If Vermont and other states are permitted to continue to abuse their § 401 authority, the economic and environmental consequences will be widespread and serious. There are almost 200 hydroelectric projects now in the FERC relicensing process, including at least 12 in Vermont alone,[42] as well as scores of others that must be relicensed in this decade. Unnecessary operating restrictions will reduce power available from these existing projects. States could even force shutdown of projects by denying certification on non-water quality grounds, or imposing onerous conditions without comprehensively balancing such conditions against energy and other environmental considerations. For industrial plants like the Gilman Centennial Mill, this will mean loss of profitability and, in some cases, could result in shutdown for economic reasons. In addition, clean, renewable hydropower lost through misuse of § 401 will have to be replaced by other sources. In New England, and in most other areas of the country, this will likely be commercial power from polluting fossil fuel sources. In addition, new proposed projects may never be built, or their economic and environmental benefits never fully realized, because of the states' use of their § 401 conditioning authority for purposes not directly related to water quality.

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[40] *Id.* at 61,173.

[41] *Id.* at 61,172.

[42] *Special Supplement 1992 Edition*, Hydrowire §§ 7-9, August 1992.

Vermont is not alone. Other states have attempted to use the § 401 certification process to encroach on FERC's licensing jurisdiction. In recent licensing proceedings, the FERC has noted numerous conditions in state water quality certifications which are unrelated to water quality and which pose actual or potential conflicts with the Commission's license, including subjecting project operations to state approval;[43] requiring that a portion of project revenues be deposited in a special account for fish and wildlife enhancement and water quality management;[44] and ordering the project owner to build angler's access paths and low-water stepping stone bridges that raise serious safety concerns.[45]

The several state courts which have considered the scope of § 401 are divided.[46] Courts in Connecticut, Oregon, New York and Pennsylvania have properly interpreted § 401 to preclude imposition of conditions, or outright denial of a certification, on non-water quality related grounds.[47] The Vermont Supreme Court has ruled to the contrary.

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[43] *Central Maine Power Co.*, 52 FERC ¶ 61,033 at 61,172 (1990).

[44] *Carex Hydro*, 52 FERC ¶ 61,216 at 61,768 (1990).

[45] *Town of Summersville*, 60 FERC ¶ 61,291 at 61,990-91 (1992), rehearing granted for further consideration.

[46] The lower federal courts have not addressed state conditioning authority under § 401, because they have consistently held that the CWA requires challenges to 401 certifications to be made in the state courts. E.g., *Roosevelt Campobello Int'l. Park Comm'n. v. EPA*, 684 F.2d 1041, 1056 (1st Cir. 1982); *Keating v. FERC*, 927 F.2d 616, 622 (D.C. Cir. 1991); *United States v. Marathon Dev. Corp.*, 867 F.2d 96, 102 (1st Cir. 1989); *Proffitt v. Rohm & Haas*, 850 F.2d 1007, 1009 (3rd Cir. 1988).

[47] *Summit Hydropower v. Commissioner of Envtl. Protection*, CV91-050-26-43, 1992 Conn. Super. LEXIS 2177, 1992 WL 175241 (Conn. Sup. July 20, 1992) (minimum spill requirement based on subjective aesthetic impact beyond the scope of state agency's section 401 authority), *Arnold Irrigation Dist. v. Department of Envtl. Quality*, 717 P.2d 1274 (Or. App. 1986) (denial of certification on

This Court should settle this important federal question. If the issue is not resolved now, other states will join besides Vermont, Maine,[48] and West Virginia[49] in using the CWA § 401 process to encroach on FERC's licensing authority during this critical decade, during which hundreds of the nation's project licenses must be considered for renewal. To postpone resolution of the problem while non-water quality conditions are tested in numerous state courts can only reduce the economic use and environmental benefits of hydroelectric power. A uniform interpretation of § 401 is essential to achieve the water quality purposes of the state certification requirement, without undermining FERC's mandate under the FPA to evaluate and balance all aspects of a project prior to licensing or relicensing.

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the basis of failure to show compliance with state and county land use requirements was error where the certifying agency did not consider whether land use provisions related to water quality), *Pennsylvania Dept. of Envtl. Resources v. City of Harrisburg*, 133 Pa. Commw. 577, 578 A.2d 563 (1990) (state water quality agency exceeded its authority under section 401 by examining the impact of physical changes in the river on aquatic resources resulting from construction of a hydroelectric project and the project's effect on wetlands and fish migration), *In re Power Auth. v. Williams*, 60 N.Y.2d 315, 457 N.E.2d 726 (N.Y. 1983) (state certificating agency limited to determining whether hydroelectric project would meet applicable water quality standards, and was not empowered to base its decision on a balancing of need for the project against adverse environmental impacts under state energy law and master plan); *see also deRham v. Diamond*, 343 N.Y.S.2d 84, 295 N.E.2d 763 (N.Y. 1973) (New York's high court interpreting section 401's precessor provision).

[48] *See supra* notes 43-44.

[49] *See supra* note 45.

B. The Plain Language Of The Clean Water Act Makes Clear That Vermont Is Not Authorized To Impose Conditions On A § 401 Water Quality Certification Which Are Unrelated To A Discharge Of Pollutants

The purpose of the Clean Water Act is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251. As the terms "chemical, physical and biological" imply, that purpose is to be achieved by the abatement and control of scientifically ascertainable pollutants found in facility discharges. *Id.* The Vermont Supreme Court's holding, that a water quality standard need not be related to a scientifically ascertainable discharge of pollutants, is contrary both to this underlying principle and to the plain language of § 401.

That language restricts state conditioning authority under § 401(d) to the imposition of requirements necessary to ensure that the project's discharge complies with objective water quality standards. Under § 401(a)(1) states must certify that facilities which "discharge" into navigable waters are in compliance with CWA §§ 301, 302, 303, 306 and 307. 33 U.S.C. § 1341(a)(1). Each of the referenced sections pertains to the abatement or control of pollution.[50] Moreover, a "discharge," as that term is used in § 401, is defined as "a discharge of a pollutant, and a discharge of pollutants." 33 U.S.C. § 1362(16). Thus, under the plain meaning of § 401, the requirements in a water quality certification can pertain only to compliance with applicable standards governing a *discharge* of a pollutant or pollutants.

Section 401(d) prescribes specific requirements that limit the conditions a state may include in a certifica-

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[50] Sections 301 and 302 set standards for effluent limitations. Section 303 governs State water quality standards and implementation plans. Section 306 sets national standards of performance for the control of discharges. Finally, § 307 sets effluent pretreatment standards and prohibits the discharge of certain effluents.

tion. The certification must set forth effluent limitations and other limitations and monitoring requirements to assure compliance with pretreatment standards under §§ 301, 302, 306 and 307 of the CWA, "and with any other appropriate requirement of State law set forth in such certification. . . ." The "other appropriate requirement" clause is *not* open-ended, as the Vermont Supreme Court held. Its context requires that it be confined to the abatement or control of the *discharge of pollutants* in accordance with the other sections of the CWA specifically enumerated in §§ 401(a) and (d).

This interpretation is supported by the EPA's regulations governing approval of state water quality standards under section 303, which is specifically enumerated in § 401(a). Management goals such as promotion of aesthetic "values" and recreational "uses" are to be achieved through implementation of specific, quantifiable "criteria." See 40 CFR §§ 131.2, 131.5, 131.6, 131.10, 131.11. These criteria provide objective standards for abating and controlling the discharge of pollutants. The management goals are not themselves enforceable water quality requirements, but rather are expressions of the ends to be promoted by specific water quality criteria.

The goals of aesthetics, fish and wildlife protection, and recreation may appropriately be promoted through specific state water quality criteria for the control of pollutant discharges. This is illustrated by this Court's decision in *Arkansas v. Oklahoma*, —— U.S. ——, 112 S. Ct. 1046 (1992). In that case, the issue was whether a direct discharge permit granted by EPA should be invalidated because the discharge violated the water quality standards, including an aesthetics criterion, of a downstream state. The Court ruled that there was no violation, in part because the EPA had determined that the discharge had not resulted in any *measurable* impacts on the levels of relevant criteria pollutants in the waters of the downstream state. *Id.* at 1059-60.

Significantly, EPA's findings concerning "aesthetics" related solely to the visual quality of the water itself, as affected by a measurable pollutant (phosphorus). *Id.* at 1059 n.16. Thus, for a water quality violation to occur, there must be a pollutant discharge which has an objective, *measurable* effect on the water quality *criteria* which relate to the more general water quality management goal.

The Vermont tribunals in this case made no finding that visual aesthetics of the water itself were affected by pollutants being discharged from the turbines of the Gilman Project. Indeed, at no stage of the case have those tribunals linked aesthetics or recreation to the quality of water in the Connecticut River. The Superior Court advanced aesthetics and recreation as an "independent" justification for the spill requirement, but offered *no* evidentiary basis for this finding related to any of Vermont's objective water quality criteria. The Vermont Supreme Court affirmed the Superior Court, but *only* on the basis of the lower court's finding that "aesthetics" and "recreation" were relevant and sufficient justifications for the spill requirement.[51] The Vermont Supreme Court never alluded to any evidentiary or technical basis in the record to support its conclusion, or to objective criteria relating to aesthetics and recreation. There is nothing in the record of the case to support such a finding. It is evident that the only concern of the

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[51] Since the Vermont Supreme Court did not base its affirmance of the § 401 certification spill requirement on the Superior Court's findings on the DO issue, those findings do not provide an independent alternative ground for the Vermont Supreme Court's affirmance. Nor is it necessary here to discuss whether the purportedly reduced DO levels are actually attributable to the Gilman Project, or whether such an effect (even if it existed) would fall within the meaning of a "discharge of a pollutant or pollutants." 33 U.S.C. § 1362(16). *See National Wildlife Fed'n v. Gorsuch*, 693 F.2d 156 (D.C. Cir. 1982) (holding that reduction of dissolved oxygen levels caused by a dam is not a discharge of a pollutant or pollutants within the meaning of CWA § 402, 33 U.S.C. § 1342).

Vermont tribunals regarding aesthetics and recreation was for the scenic vista which supposedly would be presented by water spilling over the Project crest gate to recreating tourists.

In basing its conclusion on aesthetics and recreation, the Vermont Supreme Court relied on the "any other appropriate requirement of state law" language of § 401(d). App. 3a. The court apparently was referring to the designated values and uses within Vermont's Water Quality Standards as an "other appropriate requirement of State law." However, those Standards, which were approved by the EPA pursuant to CWA § 303 and the EPA regulations at 40 CFR Part 131, refer to aesthetics only as a management objective or "value" to be pursued, and to recreation only as a designated "use" to be protected. VWQS Section 3-03.[52] The EPA regulations under which Vermont's Standards were approved clearly indicate that such values and uses are goals which can be attained only through implementation of objective, measurable water quality "criteria." *See* 40 CFR §§ 131.2, 131.5, 131.6, 131.10, 131.11.

Vermont's Standards, as required by Vt. Stat. Ann. tit. 10, § 1251a(a) (Supp. 1992), conform to the format imposed by the EPA regulations. The Standards contain objective criteria which (in the case of Class B waters) are presumably related to maintaining appropriate water quality related to aesthetic values and recreational uses. These include measurable factors such as "Turbidity," "Color," and "Taste and Odor." VWQS Section 3-03. Nowhere in the record is there any indication that any of these objective criteria relating to aesthetics or recreation was at issue. There was no suggestion in the Vermont courts, for example, that the spill condition is necessary to maintain the color or reduce

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[52] Class C waters, which include the waters below the Gilman dam, do not include aesthetics and recreation as values or uses. VWQS Section 3-04. *See supra* note 36.

the turbidity of the water, and there is no finding by any tribunal to that effect. *Cf. Arkansas v. Oklahoma, supra.* The only objective criteria invoked by the DEC were the levels of DO present in the reach below the impoundment. The DEC never proved or even claimed that DO levels affect aesthetics or recreation.

Before the Vermont Supreme Court, respondents contended that aesthetics and recreation are expressly included as "values" in Vermont's Water Quality Standards. This led that court to leap to the erroneous conclusion that the aesthetic and recreational aspects of viewing a spill over a dam constitute a "water quality" issue, and therefore an appropriate basis for imposition of a § 401(d) certification condition. The Vermont Supreme Court's holding leaves no effective limitation on state conditioning authority under § 401(d). Without a nexus to water quality in the form of objective measurements of pollutant discharges, subjective aesthetic and recreational values are an improper basis for state certifications, because they are disconnected from the CWA's carefully balanced requirements.

C. Vermont's Expansive Reading Of § 401 Would Subvert the FPA's Comprehensive Federal Licensing Scheme

Vermont's expansive reading of § 401 would allow states to subvert the federal licensing scheme set forth in the FPA. State aesthetic or recreational conditions unrelated to water quality could frustrate FERC's role as the exclusive forum for comprehensive licensing of hydroelectric uses of navigable waterways.

The error of such an approach is magnified when applied to a project like Gilman, which is located on interstate boundary waters. Vermont's spill condition in this case is directly contrary to New Hampshire's § 401 certification that the project is in full compliance with that state's water quality standards. New Hampshire did not

impose a spill requirement even though the Project's dam is located entirely in its waters, the Vermont-required spill would actually take place in New Hampshire, and New Hampshire DO standards were more stringent than Vermont's.

In the FPA, Congress vested exclusive licensing authority in a single federal agency in order to avoid such inconsistencies. Congress expressly preserved this authority in § 102(b)(6) of the CWA, 33 U.S.C. § 1252(b)(6), which for the purpose of water quality control, assigned to the Administrator of the EPA the responsibility for determining the need for storage and low flow augmentation at hydroelectric projects licensed by FERC, but left undisturbed FERC's authority under the FPA to decide whether to include spillage conditions for other purposes.[53] These purposes include energy conservation, navigation, irrigation, flood control, water supply, fish and wildlife protection, recreational opportunities and other aspects of environmental quality. *See supra* pp. 4-6.

Vermont's broad reading of § 401 as applied to hydroelectric projects amounts to a partial repeal of the FPA

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[53] Section 102(b)(6) provides:

> No license granted by the Federal Energy Regultaory Commission for a hydroelectric power project shall include storage for regulation of streamflow *for the purpose of water quality control* unless the Administrator shall recommend its inclusion and such reservoir storage capacity shall not exceed such proportion of the total storage required for the water quality control plan as the drainage area of such reservoir bears to the drainage area of the river basin or basins involved in such water quality control plan. [Emphasis added].

Section 102(b)(2) contains a similar allocation of authority for Federal water reservoirs. It provides that "the need for and the value of storage for regulation of streamflow (other than for water quality) including but not limited to navigation, salt water intrusion, recreation, aesthetics, and fish and wildlife, shall be determined by the Corps of Engineers, Bureau of Reclamation, or other Federal agencies." *See* S. Rep. No. 1236, 92nd Cong., 2d Sess. 101 (1972).

by implication. Repeals by implication are disfavored. To the maximum extent possible, courts must read related statutes together in order to give effect to each; only when the sense and purpose of each cannot be preserved by such a reading is implied repeal recognized. *Watt v. Alaska*, 451 U.S. 259, 267 (1981) (*citing Morton v. Mancari*, 417 U.S. 525, 549 (1974)). The limited authority given to the states by the CWA to prescribe water quality standards and, through the § 401 process, to certify compliance with those standards, was not intended to defeat the comprehensive planning authority vested in FERC by the FPA.

The Court has made it abundantly clear that in Part I of the FPA Congress vested in FERC (and its predecessor agencies) exclusive authority comprehensively to evaluate and balance the multi-faceted aspects of the public interest affected by hydroelectric projects. Over 40 years ago the Court in *First Iowa* rejected a state's attempt to impose a broad state permitting requirement on a hydroelectric project under the jurisdiction of the FPC. The Court stated that requiring the applicant to secure a state permit would "vest in [state authorities] a veto power over the federal project" that could "destroy the effectiveness of the Federal Act" and "subordinate to the control of the State the 'comprehensive' planning" with which the FPC was charged. *First Iowa Hydro-Elec. Coop. v. FPC*, 328 U.S. 152, 164 (1946). The validity of the *First Iowa* holding has been reaffirmed by the Court on numerous occasions.[54]

This Court recently rejected an attempt by a state to undermine FERC's primary role by applying an expansive reading of FPA section 27, which reserves certain

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[54] *Pacific Gas & Elec. Co. v. State Energy Resources Conservation & Dev. Comm.*, 461 U.S. 190, 223 n.34 (1983); *New England Power Co. v. New Hampshire*, 455 U.S. 331, 338-39 n.6 (1982); *City of Tacoma v. Taxpayers of Tacoma*, 357 U.S. 320, 334 (1958); *FPC v. Oregon*, 349 U.S. 435, 444-45 (1955).

authority to the states regarding proprietary water rights. *California v. FERC*, 495 U.S. 490, *reh'g denied*, 110 S.Ct. 3304 (1990). The Court pointed out that Congress, in its 1986 amendments to the FPA,[55] had the opportunity to alter FERC's role *vis a vis* the states, but chose instead "to elaborate and reaffirm *First Iowa*'s understanding that the FPA establishes a broad and paramount federal regulatory role." 495 U.S. at 499.

In 1986, Congress added subsection (j) to FPA § 10, 16 U.S.C. § 803(j). It requires FERC to implement state fish and wildlife recommendations unless it finds sufficient grounds for rejecting them. Congress would not have added this provision if it believed that the states already had the authority to impose mandatory fish and wildlife conditions in a § 401 certification. Moreover, the reaffirmation of FERC's primary role would have made no sense if Congress had already transferred it to the states in § 401 of the CWA.[56]

Through § 10(j) and through FERC's pre-filing consultation process, 18 CFR §§ 4.38, 16.8, the states can make recommendations to FERC relating to recreation, aesthetics, fish and wildlife, and other aspects of a project. However, a state may not impose mandatory conditions, or veto the construction or continued operation of a project, based on such matters. That is FERC's role. The limited authority granted to state water quality agencies by § 401 should not be interpreted so as to permit states to subvert both the FPA and the CWA by including certification conditions unrelated to water quality.

The FERC has a statutory mandate to balance carefully various power and non-power values, including

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[55] Electric Consumers Protection Act, Pub. L. No. 99-495, 100 Stat. 1243 (1986).

[56] Section 401 is part of the Federal Water Pollution Control Act Amendments of 1972, P.L. 92-500, approved October 11, 1972, 86 Stat. 816 (1972).

aesthetics and recreational concerns. The states typically have no equivalent obligation. The present case is a clear example of the consequences of allowing a state water quality agency, with a relatively narrow focus and agenda, to usurp FERC's comprehensive planning role by imposing an unreasonable and burdensome § 401 condition which FERC and the federal courts are powerless to revise. The Vermont DEC would impose a costly spill condition on an existing project dam, which is located in another state that imposed no such requirement. Moreover, the DEC engaged in no apparent analysis of the economic or broader environmental impacts of the spill requirement. Congress could hardly have intended such a result in enacting § 401.

CONCLUSION

The petition for writ of certiorari should be granted.

Respectfully submitted,

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December 1992

APPENDICES

APPENDICES

APPENDIX A

VERMONT SUPREME COURT

Supreme Court Docket No. 91-530

MAY TERM, 1992

GEORGIA-PACIFIC CORPORATION and SIMPSON PAPER (VERMONT) CO., INC.

v.

DEPARTMENT OF ENVIRONMENTAL CONSERVATION and SIERRA CLUB

Appealed From: Washington Superior Court
Docket No. S473-89 WnCa

ENTRY ORDER

In the above entitled cause the Clerk will enter:

Plaintiffs appeal a Washington Superior Court judgment affirming a decision of the Vermont Department of Environmental Conservation (DEC). They seek to set aside continuous spillage conditions in a § 401 water quality certification, or, alternatively, seek a remand to the DEC for consideration of additional evidence, or a remand to superior court for de novo review. We affirm.

Plaintiffs' contention that the court's denial of their request to remand to the DEC for additional evidence and

reconsideration was an abuse of discretion is without merit. A remand to an administrative agency is meant only as a "safety valve" to be used if justice so requires. *In re Maple Tree Place*, 156 Vt. 494, 499 (1991) (quoting *State ex rel. Gunstone v. Washington State Highway Commission*, 72 Wash. 2d 673, 674, 434 P.2d 734, 735 (1967)). The court found that plaintiffs had the opportunity, which they did not take, to present evidence of their management proposal to the DEC. Further, the court found that the additional proceedings would be a waste of time and expense and would most likely not change the result. These findings are not clearly erroneous and amply support the court's discretionary ruling.

Plaintiffs argue they were entitled to a de novo hearing on the merits in superior court. Plaintiffs, however, waived any opportunity for a de novo hearing with the court, as illustrated by the following exchange at a pending motions hearing:

> The Court: . . . It is your position that this is not a de novo hearing?
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> Mr. Pearson: My position today is—and if my feet were held to the fire, I don't think it is—but I think on the other hand, an argument could be made that the Rule 75 does not preclude a de novo hearing. It leaves it to other applicable law to decide what the hearing is. I think if we really want to work at it, we could make an argument that in this context a de novo hearing would be appropriate. I've yet to convince Washington counsel and my client one way or the other on that issue. My personal feeling is I think it probably is not a de novo hearing, although, as I say, I think an argument could be made, and I just haven't convinced them to forget about that little argument we could make and get on with the business of just having this heard on the administrative record.
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> . . . .

> The Court: [I]t would appear that the only issue is whether the plaintiff has almost agreed that it's not going to be a de novo hearing. The State agrees that it's not going to be a de novo hearing? Yes.
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> . . . .
>
> The Court: Do you [Sierra Club]—is it your position that this is a de novo hearing or is this not?
>
> Mr. Smith: It's the Club's position that this is a review of the administrative record.
>
> The Court: Right. I think maybe we have an agreement.

At no further time was there consideration of whether review would be de novo. The court was never asked to rule, nor did it rule, on the de novo issue raised here.

Plaintiffs also argue for the first time on appeal that denial of a remand to the DEC violated their constitutional rights. These challenges are likewise waived. *In re Quechee Lakes Corp.*, 154 Vt. 543, 552, 580 A.2d 957, 962 (1990).

Plaintiffs lastly contend that the spillage requirement was not supported by the evidence and that it was beyond the DEC's authority under federal law to consider aesthetic and recreational factors as grounds for a spillage requirement. The Clean Water Act allows the state to impose conditions in a § 401 certification to ensure applicant's compliance with certain criteria, including "any other appropriate requirement of State law." 33 U.S.C. § 1341 (d). Vermont's water quality standards promulgated in accordance with this Act require that the Connecticut River be managed for "water of a quality which consistently exhibits good aesthetic value . . . and recreation." Vermont Water Quality Standards § 3-03. The DEC spillage requirement was amply supported by the evidence. Not only were aesthetics and recreation considered relevant, ease of administration and monitoring were fostered by the requirement. See *In re Sherburne*,

154 Vt. 596, 607, 581 A.2d 274, 280 (1990) (added deference afforded agency determinations in highly technical fields).

Affirmed.

BY THE COURT:

/s/ Frederic W. Allen
FREDERIC W. ALLEN
Chief Justice

/s/ Ernest W. Gibson III
ERNEST W. GIBSON III
Associate Justice

/s/ John A. Dooley
JOHN A. DOOLEY
Associate Justice

/s/ James L. Morse
JAMES L. MORSE
Associate Justice

/s/ Denise R. JOHNSON
DENISE R. JOHNSON
Associate Justice

APPENDIX B

STATE OF VERMONT
WASHINGTON COUNTY, ss.

VERMONT SUPERIOR COURT

Docket No. S473-89 WnCa

GEORGIA-PACIFIC CORPORATION and SIMPSON PAPER (VERMONT) INC.,
Plaintiffs,

vs.

VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION and THE SIERRA CLUB,
Defendants.

OPINION AND ORDER

Plaintiffs Georgia-Pacific Corporation (hereinafter "G-P") and Simpson Paper (Vermont), Inc. (hereinafter "Simpson") ask the court to revise or remand the § 401 Water Quality Certification issued by the Vermont Department of Environmental Conservation (hereinafter "DEC") back to the DEC for further consideration. Defendants DEC and Sierra Club oppose the appeal. In response, and in consideration of the extensive administrative records before the court, the court makes the following findings, conclusions, and order:

1. The Gilman Project, an existing hydroelectric station on the Connecticut River, has entered the Federal Energy Regulation Commission relicensing process. The present license expires December 31, 1990.

2. The project is owned by Simpson, and the license is held by G-P. The dam was constructed about 1900 and is a low timber crib and concrete structure.

3. The powerhouse is integral with the dam and is located on the west side of the river, partly in Vermont and partly in New Hampshire. It contains four units with a total plant capacity of 4850 kw.

4. The dam, which is about 319 feet long with a maximum height of 38 feet, is 21 miles below the breached Northumberland Dam and 11 miles above the Moore Reservoir Dam. Five feet of flashboards on Gilman Dam bring the normal pond to elevation 833.3′ NGVD. The approximate tailwater elevation is 809.0′ NGVD, which corresponds to the Moore Reservoir full pool elevation. Gilman Dam creates an impoundment that extends 2.9 miles upstream to a point just above the Johns River. The surface area and gross volume are 130 acres and 705 acre-feet, respectively.

5. The project is described as run-of-river with a usable net storage capacity that is considered to be negligible. Outflow equals inflow on an instantaneous basis. The hydraulic capabilities of the four turbines are 1250 cfs, 600 cfs, 500 cfs, and 500 cfs, for a total of 2850 cfs. The total capacity is close to the mean river flow of 2915 cfs. The 1250 unit was installed as a replacement for an older unit in 1985-86. It is automatically operated while the other units are manual. A crest gate installed in 1979 is used to help maintain the pond level at the top of the boards at inflows up to project capacity and to reduce the incidence of flashboard failure, which occurs at surcharges in excess of 1.5 feet. The powerhouse can generate down to 130 cfs without cycling.

6. The average operating level of Moore Reservoir during the months of July and August is 805.2′ NGVD. At this level, the reservoir extends to Cushman Brook, which is on the New Hampshire side about one mile below Gilman Dam.

7. On April 22, 1985, the DEC issued to G-P a § 401 certification in connection with the aforementioned 1985-86 replacement of one of the four turbine/generator units at the Gilman hydroelectric project. In that 1985 certification, the DEC stated in part that "due to pollutant loading and reduced reaeration caused by impounded waters and diversion of flow at dams, there is a critical dissolved oxygen problem in the Connecticut River . . . the Department will investigate opportunities to increase aeration at this site during the relicensing process."

8. In 1983 Metcalf & Eddy, Inc, modeled water quality conditions in the Connecticut River from the Upper Amonoosuc River to the Gilman Dam for the federal E.P.A. The 1983 study indicated that substandard DO conditions would prevail for a substantial portion of the study reach under critical low flows and design wastewater discharges.

9. In 1985, G-P contracted with Aquatec, Inc, to perform an intensive 48 hour DO sampling program that included stations from just upstream on the Johns River to a point about 1½ mile downstream of the dam, within the summer operating pool of the Moore Reservoir. The study was conducted August 12-14, 1985. Flows were estimated at 800 cfs, or about twice the 7Q10 of 373 cfs. An effort was made to quantify the potential benefits of reaeration at the dam. During the first half of the study, downstream samples were collected with no water being spilled at the dam. During the last 24 hours, 100 cfs was released over the crest gate discharging at 833.3′ NGVD above the sill elevation of 812.1′ NGVD.

10. The Aquatec program concluded that all samples collected on the main stem were above 6 mg/l dissolved oxygen. The Johns River exhibited lower dissolved oxygen levels down to 5.2 mg/l. Releases over the crest gate gained from this point source of reaeration from 0.4 mg/l to 0.8 mg/l of dissolved oxygen over the levels measured in the tailrace discharge. DO levels also gen-

erally increased in the free-flowing river reach between the two sampling stations furthest down the study reach below the dam.

The sampling period 800 cfs does not represent conditions under which violations of DO standards would be expected.

11. In 1985, Metcalf & Eddy were hired by plaintiff to provide a model for reaeration of flows over Gilman Dam and the upstream DO conditions with the new discharge permit limits for the Groveton paper mill. Conditions were modeled at 800 cfs and 7Q10, with and without a spillage of 100 cfs. At 7Q10, upstream DO levels reached 5.2 mg/l (3.6 mg/l deficit from saturation at 22.5 C) at the dam and at 800 cfs, 6.05 mg/l. Spillage of 100 cfs mixed with the unaerated turbine discharge produced a mixed dissolved oxygen level directly below the dam of 6.3 mg/l at 7Q10 and 6.9 mg/l at 800 cfs.

No attempt was made to determine the mixed DO concentration necessary at different river discharges in order to assure that the downstream dissolved oxygen sag remains above standards. Without adequate spillage and consequent elevated DO levels, the study concluded that substandard conditions would occur in the downstream reach to Moore Reservoir. For example, at 7Q10 flows and the project operating without spillage, the substandard condition on the upstream side of the dam (5.2 mg/l) would be released through the turbine, additional wasteload would be added at Gilman, and DO levels would continue to decline.

12. Metcalf & Eddy's 1985 report states:

> Modeling results indicated probable water quality standard violations under critical low flow conditions for a substantial portion of the study area . . . the large DO [dissolved oxygen] sag from river mile

> 324 to 312 is caused by BOD [biochemical oxygen demand] exertion from the James River discharge and by sediment oxygen demand through this region.

Metcalf and Eddy, *Georgia-Pacific Modeling Study* (1985), at p. 2-4.

13. Simultaneous with the § 401 certification process for the hydroelectric project, G-P was seeking renewal of its "Direct Discharge Permit," which allowed for discharge of the paper mill's treated wastewater from the papermaking process itself. This Discharge Permit was granted by DEC on March 15, 1989, and is effective until September 30, 1993. A particular requirement of that permit provides the limits for discharge of BOD(5) (five day biochemical oxygen demand) at 1,650 pounds maximum per day and 1,100 pounds maximum on an average monthly basis. These are the same BOD(5) discharge limits which had been in effect for the G-P paper mill in the previous permit, since 1981.

14. The James River Corporation paper plant in Groveton, New Hampshire on the Upper Amonoosuc River, which empties into the Connecticut River upstream of the Gilman project, has always been known and acknowledged by DEC to be the largest single case of dissolved oxygen deficiencies in the upper Connecticut River. G-P argues that three years after G-P and DEC had begun informal discussions about the § 401 certification, and more than ten months after G-P's formal application, DEC was mistaken about where the paper mill's direct discharge enters the Connecticut River. Whereas the discharge enters some "750 feet upstream from the Gilman Dam," DEC's only modeling run assumed that the discharge entered the river downstream from the dam. However, the DEC agreed not to hold plaintiffs responsible for substandard water quality conditions caused by upstream discharges, assuming in the case at bar the DO standard had been met upstream of the plaintiff's dam.

Therefore, any mistakes concerning the location of the discharge from the James River plant does not change the resuults in the case at bar.

15. The Gilman hydroelectric project's capability to operate at a broad range of flows from mean flow down to 130 cfs, which is below the 7Q10 value of 373 cfs, does not provide for reaeration over the dam at these flows. The DO deficit reduction caused by spillage reaeration is important in this water quality limited segment. Run-of-river operation does not in and of itself assure DO standards will be met.

16. DEC independently conducted one complete run of its own "DOSIM" computer model analysis of predicted water quality impacts caused by the Gilman Dam project. The DEC's computer run reflected known conditions of the rivers. The "DOSIM" model, as applied in this case, is identical to the "Qual-II" computer models used and recognized by the Federal E.P.A. The plaintiff's "Qual-II" model results concurred with the relevant portions of the "DOSIM" analysis.

17. An additional computer modeling analysis was done in June of 1989 by Kleinschmidt Associates, G-P and Simpson's engineering consultant. This analysis utilized 33 different sets of input parameters. Despite its own computer data, DEC adopted plaintiff's "Run E" to accommodate plaintiffs. The DEC also took into account the revised and refined application of the "DOSIM" model and the results of the plaintiffs' water quality certificate. The DEC also factored in daily fluctuations of DO.

18. The final and revised "DOSIM" model runs performed by Kleinschmidt Associates showed that (a) under possible 7Q10 (i.e. 370 cfs) river flow conditions, (b) at summertime river temperatures of 22 degrees centigrade (71.6 degrees Fahrenheit), and (c) with all upstream point source discharges, including the G-P/

Simpson mill as well as the James River paper plant, at maximum permitted levels, downstream of the Gilman Dam there could be a "sag" or temporary decline in DO levels from 6.3 mg/l to 6.1 mg/l before recovering to 6.4 mg/l at distances below the dam of 1.5 to 2.4 to 3.5 miles respectively.

19. The decrease or "sag" in DO levels downstream of the Gilman Dam under the refined "DOSIM" analysis would be 0.4 mg/l of DO before recovery. G-P concedes that under these adverse conditions there is a DO deficit of 0.4 mg/l.

20. The seven day average high summer water temperature in the Connecticut River at the project site which has been assumed for all final water quality computer analyses run in June 1989 is 22 degrees centigrade, or 71.5 degrees Fahrenheit. The modeling on which the water quality certificate is based assumed a river temperature of 22 degrees centigrade. Daily temperature readings in the river taken between January 1979 and April of 1989 (except June 1984 to August 10, 1985) reveal seven day river temperatures in excess of 21.1 degrees centigrade, or 70 degrees Fahrenheit, occur for approximately a four week period, from July 10 to August 6 of each year. Seven day average river temperature exceeded 65 degrees Fahrenheit for approximately a seven week priod, from July 7 to August 27 of each year. The required DO standard is inversely proportional to temperature; as the temperature increases the DO standard decreases.

21. The Connecticut River is categorized as Class B waters from Groveton to Gilman Dam and Class C from Gilman to the Lunenburg town line. The river is designated a cold water fish habitat. The Vermont water quality standards require that DO levels in a cold water fish habitat be not less than 6.2 mg/l, or 70% saturation (75% for New Hampshire) at 22 degrees centigrade at all times, unless a higher standard is determined to be

necessary for reaches critical to spawning or nursery. The standards require that applicable water quality criteria apply at the agreed minimum flow, or 7Q10, whichever is less.

22. Diurnal fluctuation—i.e. differences between daytime and nighttime DO levels due to photosynthesis and respiration effects of algae in the river—occur both upstream and downstream of the Gilman Dam, in the Gilman impoundment, and in Moore Reservoir. The downstream diurnal fluctuation was 1.6 mg/l. A total flux of 1.6 mg/l causes DO to rise 0.8 mg/l above background conditions. As such, natural river conditions will cause a DO deficit of at least 0.8 mg/l beyond the 0.4 mg/l deficits caused by the dam's normal operations, resulting in a cumulative summer DO deficit of 1.2 mg/l.

23. Based on the DO deficits caused by the Gilman Dam and diurnal fluctuation, the DEC imposed conditions on the § 401 permit awarded to G-P, requiring a spillage of at least 210 cfs between June 1 and October 15 of each year to compensate for the DO deficit. This would increase DO to 7.4 mg/l directly below the dam and would increase the DO at the downstream "sag point" to the state minimum of 6.2 mg/l.

24. In addition to alleviating the DO deficit, spillage of 210 cfs between June 1 and October 15 will serve to prevent aquatic habitat degration and will protect downstream water quality for a number of species of fish, including the Atlantic salmon. The spillage requirement will also serve to restore to a degree the aesthetics of the river downstream of the dam during the time of year when public use of the river is at its peak.

25. DEC completed its modeling in November 1988 and notified plaintiffs in December 1988 that, based on the modeling, spillage would be required. The modeling accounted for diurnal flux. At plaintiffs' request, discussions

began on June 13, 1989 and continued until the issuance of the water quality certificate.

Conclusions of Law

A. "On appeal, an agency's conclusions of law will be upheld if they are fairly and reasonably supported by the findings of fact." *In re Orzel*, 145 Vt. 355, 359 (1985), citing *In re McGrath*, 138 Vt. 77, 82 (1980).

B. In determining whether the DEC acted unreasonably or arbitrarily in requiring a continuous spill requirement for the specified period, the court ". . . must decide whether the decision makes sense to a reasonable person—even if the reviewing court might have weighed the factors differently." *In re Town of Shelburne*, 154 Vt. 596, 605 (1990), citing *State Dept. of Taxes v. Tri-State Industrial Laundries, Inc.*, 138 Vt. 292, 294 (1980). However, an agency has the obligation to ". . . explain its reasons for finding as it [did]; if it does not give reasons, its decision may appear arbitrary." *In re Town of Shelburne*, 154 Vt. at 605 (citations omitted).

C. In reviewing the decisions of administrative agencies, our Supreme Court has served notice that it is ". . . an appellate court, not a fact finding agency; we must defer to the [agency] when its findings are supported—even when the record contains contradictory evidence—and when its conclusions are rationally derived from its findings and based on a correct interpretation of the law." *Id.* at 607, citing to *In re Southview Associates*, 153 Vt. 171, 177-178 (1989). "Where an administrative agency is deciding a highly technical matter, a reviewing court will defer more readily than where the issues in controversy are accessible to a generalist judge." *Shelburne* at 607.

D. The DEC has a mandate to protect the environmental health of the Connecticut River in order to

preserve it as a habitat for aquatic species and its aesthetic value for recreational use. It is plaintiffs' burden to demonstrate to the DEC that the Gilman Dam will not violate water quality standards; it will not suffice for plaintiffs to show that the dam might not adversely impact the river environment.

E. G-P does not contest that under certain conditions that the normal operation of the dam may cause a DO deficit of 0.4 mg/l in the Connecticut River south of the Gilman Dam project. The conclusions of the DEC's computer modeling runs as well as the conclusions of plaintiffs' own experts, Metcalf & Eddy and Kleinschmidt Associates, support this finding. The court has no reason to doubt the consensus of scientific opinion on this fact.

F. Similarly, the court has been presented with no reason to doubt the DEC's conclusion that diurnal fluctuation may cause an additional DO deficit of 0.8 mg/l. In light of its factual determination that the DO "sag" caused by the dam and diurnal fluctuation could cause a DO deficit directly below the dam or 1.2 mg/l, the DEC ruled that a continuous flow of 210 cfs from June 1 to October 15 was necessary to counteract the DO deficit. This is precisely the type of "highly technical matter" to which the *Shelburne* Court recommended a high level of deference to agency expertise, and the court will not presume to substitute its judgment for that of the agency.

G. In addition to the express finding that a continuous flow of 210 cfs is required to restore and improve the Connecticut River as a fish habitat, the DEC also concluded that the specified continuous flow was required to safeguard the aesthetic appeal of the river to the numerous persons who use the river for recreation during the specified time period. The aesthetic determination forms a strong independent basis upon which to uphold the 210 cfs continuous spill requirement during the specified time period.

H. The court finds substantial evidence in the record to support the DEC determination that a continuous flow of 210 cfs over the Gilman Dam during the specified time period is necessary to protect and improve the Connecticut River as a resource.

I. Plaintiffs seek a remand of the case to the DEC, asserting that they should receive the opportunity to present to DEC an alternative method of assuring sufficient DO downstream, specifically by continuous monitoring of downstream DO conditions during the specified time period and spillage of additional water when there is a measurable downstream DO deficit. Remand requests such as that sought by plaintiffs is governed by the recent Vermont Supreme Court case of *In re Maple Tree Place.* —— Vt.L.W. ——. No. 90-354 (May 17, 1991).

Maple Tree Place stands for the proposition that trial courts have the inherent power to order a remand to an administrative agency where the interests of justice so require. Slip op. at pp. 5, 10. Our Supreme Court cited with approval what the Court characterized as a "common sense approach to remand" as set forth by the Washington State Supreme Court in *State ex rel Gunstone v. Washington State Highway Commission*, 434 P.2d. 734, 735 (1967). *Maple Tree Place*, slip op. at p. 6. A remand is to be used as a "safety valve," to be used where the agency ". . . may have acted upon incomplete or inadequate information: or may have failed to give adequate consideration to an alternative route . . ." *Id.*

J. The court finds that the record before the DEC is bare of any formal presentation by plaintiffs of their proposed management plan despite knowledge as early as 1983 that DO deficits existed downstream of the dam. *See* Findings of Fact 8 and 12 (the 1983 and 1985 Metcalf & Eddy studies); *see also* Finding of Fact 7 (the DEC informed plaintiffs in conjunction with the 1985 replacement of a turbine that DO levels would be an issue

during the relicensing process). The record is clear that it was not until after plaintiffs realized that the DEC was serious about imposing a continuous spill requirement that plaintiffs agreed that their management plan would accomplish the same goals as the continuous spill requirement.

Plaintiffs were never prevented from proposing their plan during the pendency of the application; the interest of justice therefore do not require a remand solely to afford plaintiffs a second opportunity to fulfill their obligation to provide an adequate record. *Cf. Goshey v. Morey*, 149 Vt. 93, 97 (1987); *Estate of Emilio St. Pierre*, 146 Vt. 421, 424 (1985) (construing analogous V.R.C.P. 60(b)(6) for the proposition that the interests of justice do not require relief from judgment where a party has made a deliberate litigation choice); *compare Maple Tree Place*, slip op. at 2 (plaintiffs asserted that they were misled into not presenting a plan for phased development by the actions of the agency; no such misleading during the pendency of the application is asserted by plaintiffs in the case at bar). The court rules that *Maple Tree Place* does not support a remand for additional consideration of a plan which was not submitted to the DEC until after the application process was closed and the continuous flow requirement set in place.

K. Moreover, the court finds that remand would serve no useful purpose because the management plan as proposed by plaintiffs has already been found flawed by an agency with considerable expertise in the area of hydropower management, the Federal Energy Regulatory Commission ("FERC"). In a formal *Environmental Assessment for Hydropower Licence*, Gilman Hydroelectric Project, dated April 4, 1990, FERC approved of the continuous spill requirement and rejected plaintiffs' proposal, stating:

> The [210 cfs spill flow] proposed by the VANR uses spill flow at the dam, an easily gaged and monitored parameter, to meet specific future DO goals downstream of the project. *The applicant's proposed water quality management plan, which depends on an unproven predictive water quality model, would be difficult to monitor and enforce for compliance with the goal of maintaining DO at the sag point.*

Id. at p. 18 (emphasis added). The court sees no reason to doubt FERC's expertise in this area, finds its conclusions to be supportable, and accepts as fact FERC's negative scientific assessment of plaintiffs' proposal. *See Shelburne*, 154 Vt. at 605, 607.

L. Additionally, in informal discussions between the DEC and plaintiffs which have occurred since the continuous spill requirement was placed on plaintiffs' permit, the DEC has also disapproved of the management proposal as being unworkable in light of present day technology and violative of the water quality standards. Remand to DEC would therefore more than likely cause unnecessary expense and delay and would result in the issuance of a permit with the same conditions as are attached to the current permit.

M. Finally, there is no reason to believe that plaintiffs' management plan would serve the aesthetic and recreational goals which will be enhanced by the June 1 to October 15 continuous flow requirement.

CONCLUSION AND ORDER

The decision of the DEC requiring flow of 210 cfs over the Gilman Dam between June 1 and October 15 is supported by substantial evidence and is *AFFIRMED.* A *Maple Tree Place* remand is inappropriate because plaintiffs had full opportunity to present their alternative management proposal to the DEC prior to the issuance of the conditional permit and failed to do so. Moreover,

plaintiff's management proposal has already been formally rejected by FERC and informally rejected by DEC as insufficient to protect the Connecticut River in light of current technology. Plaintiffs' request for remand is *DENIED.*

Dated at Chelsea, Vermont, this 2nd day of Oct. 1991.

/s/ Alan W. Cheever
HON. ALAN W. CHEEVER
Superior Court Judge

APPENDIX C

WATER QUALITY CERTIFICATION
(P.L. 92-500)

IN THE MATTER OF: GEORGIA-PACIFIC CORPORATION
GILMAN, VERMONT 05904

Application for the Gilman Project

The Water Quality Division of the Vermont Department of Environmental Conservation (the Department) has reviewed the water quality certification application filed for Georgia-Pacific Corporation (the applicant) by letter dated August 2, 1988. The Department finds:

1. The Gilman Project, an existing hydroelectric station on the Connecticut River, has entered the Federal Energy Regulatory Commission relicensing process. The present license expires December 31, 1990.

2. The project is located at the Georgia-Pacific Corporation Whitefield Division paper plant at Gilman village in the Town of Lunenburg. The dam was constructed about 1900 and is a low timber crib and concrete structure.

3. The powerhouse is integral with the dam and located on the west side of the river, partly in Vermont and partly in New Hampshire. It contains four units with a total plant capacity of 4850 kw.

4. The dam, which is about 319 feet long with a maximum height of 38 feet, is 21 miles below the breached Northumberland Dam and 11 miles above the Moore Reservoir Dam. Five feet of flashboards

on Gilman Dam bring the normal pond to elevation 833.3′ NGVD. The approximate tailwater elevation is 809.0′ NGVD, which corresponds to the Moore Reservoir full pool elevation. Gilman Dam creates an impoundment that extends 2.9 miles upstream to a point just above the Johns River. The surface area and gross volume are 130 acres and 705 acre-feet, respectively.

5. The project is described as run-of-river with a "usable (net) storage capacity [that] is considered to be negligible" (page A-10 of the FERC application, which was filed as supporting documentation for the certification request). "Outflow [equals] inflow on an instantaneous basis" (page A-2 of the FERC application). The hydraulic capacities of the four turbines are 1250 cfs, 600 cfs, 500 cfs and 500 cfs, for a total of 2850 cfs. The total capacity is close to the mean river flow of 2915 cfs. The 1250 cfs unit was installed as a replacement for an older unit in 1985-1986. It is automatically operated while the other units are manual. A crest gate installed in 1979 is used to help maintain the pond level at the top of the boards at inflows up to project capacity and to reduce the incidence of flashboard failure, which occurs at surcharges in excess of 1.5 feet. The powerhouse can generate down to 130 cfs without cycling.

6. The average operating level of Moore Reservoir during the months of July and August is 805.2′ NGVD. At this level, the reservoir extends to Cushman Brook, which is on the new Hampshire side about one mile below Gilman Dam.

7. The Connecticut River is Class B waters from Groveton to Gilman Dam and Class C from Gilman to the Lunenburg town line. A critical dissolved oxygen problem occasionally exists in the river at

certain times of the year as a result of pollutant loading and reduced reaeration potential caused by impounded waters and reduced spillage at dams due to hydroelectric operation. The project is in a water quality limited segment.

The river is designated as a cold water fish habitat, which sets the dissolved oxygen standard at a minimum of 6 mg/l or 70% saturation (75% for New Hampshire) unless a higher standard is determined to be necessary for reaches critical for spawning or nursery. Section 1-03 of the Vermont Water Quality Standards imposes a higher level of protection by outlining the public good criteria to be met in cases where a project may degrade water quality where existing water quality generally exceeds minimum standards.

8. In the project area, the river receives treated wastewater discharges from the municipalities of Groveton, Lancaster, Northumberland and Lunenburg and from the paper mills at Gilman and Groveton (James River Paper Company). According to the application, untreated sanitary wastes enters the Johns River at the Village of Whitefield, N.H.

9. Metcalf & Eddy, Inc. modeled water quality conditions in the Connecticut from the Upper Ammonoosuc to Gilman in 1983 for E.P.A. The model indicated that substandard conditions would prevail for a substantial portion of the study reach under critical low flows and design wastewater discharges.

10. The applicant contracted with Aquatec, Inc. to perform an intensive 48-hour dissolved oxygen sampling program that included stations from just upstream of the Johns River to a point about 1½ mile downstream of the dam (within the summer

operating pool of Moore Reservoir). The study was conducted August 12-14, 1985. Flows were estimated at 800 cfs, or about twice the 7Q10 of 373 cfs. An effort was made to quantify the potential benefits of reaeration at the dam. During the first half of the study, downstream samples were collected with no water being spilled at the dam. During the last 24 hours, 100 cfs was released over the crest gate discharging at 833.3′ NGVD above the sill elevation of 812.1′ NGVD.

All samples collected on the main stem were above 6 mg/l dissolved oxygen. The Johns River exhibited lower dissolved oxygen levels down to 5.2 mg/l. Releases over the crest gate gained from this point source of reaeration from 0.4 mg/l to 0.8 mg/l of dissolved oxygen over the levels measured in the tailrace discharge. Dissolved oxygen levels also generally increased in the free-flowing river reach between the two sampling stations furthest down the study reach below the dam.

The sampling period 800 cfs does not represent conditions under which violations of dissolved oxygen standards would be expected.

11. Under a contract with the applicant, Metcalf & Eddy, Inc. modeled reaeration of flows over Gilman Dam and the upstream dissolved oxygen conditions with the new discharge permit limits for the Groveton paper mill. Conidtions were modeled at 800 cfs and 7Q10, with and without a spillage of 100 cfs. At 7Q10, upstream dissolved oxygen levels reached 5.2 mg/l (3.6 mg/l deficit from saturation at 22.5 C) at the dam and at 800 cfs, 6.05 mg/l. Spillage of 100 cfs mixed with the unaerated turbine discharge produced a mixed dissolved oxygen directly below the dam of 6.3 mg/l at 7Q10 and 6.9 mg/l at 800 cfs.

No attempt was made to determine the mixed dissolved oxygen concentrations necessary at different river discharges in order to assure that the downstream dissolved oxygen sag remains above standards. Without adequate spillage and consequent elevated dissolved oxygen levels, substandard conditions would occur in the downstream reach to Moore Reservior. For example, at 7Q10 flows and the project operating without spillage, the substandard condition on the upstream side of the dam (5.2 mg/l) would be released through the turbine, additional wasteload would be added at Gilman, and the dissolved oxygen levels would continue to decline.

12. The applicant's FERC application indicates no changes to their present mode of operation; however, the applicant has proposed to spill 130 cfs under circumstances during the period July 15-September 15 where inflow is below 500 cfs and measured dissolved oxygen levels downstream fall below 6.2 mg/l.

13. The project's capability to operate at a broad range of flows from mean flow down to 130 cfs, which is below the 7Q10 value of 373 cfs, does not provide for reaeration over the dam at these flows. The dissolved oxygen deficit reduction caused by spillage reaeration is important in this water quality limited segment. Run-of-river operation does not in and of itself assure standards will be met.

14. During June, 1989 and in cooperation with Kleinschmidt Associates, the applicant's engineering consultant, the Department performed a screening model analysis of the reach from Gilman Dam to Moore Reservoir to estimate the spillage necessary to assure maintenance of dissolved oxygen above Vermont's minimum standards. At 7Q10 flows

of 373 cfs, 210 cfs must be spilled to create a mixed dissolved oxygen level of 7.4 mg/l directly below the dam (6.2 mg/l assumed upstream of dam). The resulting dissolved oxygen sag curve downstream would decline to 6.2 mg/l (70% saturation at 22 C), including the effect of the discharge of Georgia-Pacific's permitted waste load of 3150 lb./day UOD combined with a dissolved oxygen flux caused by algal respiration and photosynthesis.

The model indicates that dissolved oxygen levels would drop below minimum standards to less than 60% saturation at the sag under a no-spill operating condition, assuming 7Q10 flows and waste discharges at design. The project can operate down to 130 cfs; dissolved oxygen levels during periods of flow less than 7Q10 would be even more severely depressed. Under flow conditions higher than 7Q10, the increase in dilution of pollutant loadings combined with a spillage of 210 cfs will assure that standards are met downstream.

15. Vermont manages the Connecticut River as a cold water fish habitat. Resident species include rainbow, brook and brown trout as well as several warm water species including smallmouth bass, perch, bullhead, and pickerel. Vermont is also participating in a cooperative program with several other states and federal agencies to restore Atlantic salmon and shad to the Connecticut River Basin.

Present plans include construction of trap facilities at Ryegate Dam and transporting salmon upstream for access to spawning habitat. Between Gilman Dam and Canaan Dam, approximately 9% of the nursery habitat for the Connecticut is believed to exist. The applicant would be expected

to participate in the cost of effecting the final upstream passage plan.

Safe downstream passage of the salmon is also critical to the success of the program. Reduction of both turbine and trashrack impingement mortality and provision of conveyance flows over or through the dam are important elements of downstream passage plans. An alternative of using trap-and-truck facilities to accommodate downstream passage is also being considered.

The applicant has developed conceptual designs for downstream passage facilities with the U.S. Fish & Wildlife Service. The plan consists of an angled intake guidance system, a bell-mouthed intake and a bypass conduit. A flow of 30 cfs would be used to operate the system. The applicant proposes in the license application to institute these measures when warranted by planned stocking of salmon upstream of Gilman. No use of the Upper Connecticut River is being made at this time. It should be noted that hatchery produced salmon may be placed upstream of Gilman Dam to use the available spawning and nursery habitat *before* upstream passage facilities are constructed.

16. Operation as a strictly run-of-the-river project with no artificial flow regulation and no impoundment fluctuations will prevent the aquatic habitat degredation associated with a cycling type of operation. By letter dated October 3, 1988, the N.H. Fish and Game Department recommended a license article requiring an instantaneous minimum stream flow of 757 cfs. The operation as proposed should assure that this standard is met.

17. The applicant proposes to improve the canoe portage route and the existing boat launch near the Johns River. Both of these facilities are on the

New Hampshire side. The Agency of Natural Resources finds that recreational use demands on the Connecticut are continuing to increase and that additional amentities to further enhance recreational use will be sought in the future.

18. Spillage of 210 cfs for protection of downstream water quality during the period June 1 through October 15 will also serve to restore to a degree the aesthetics of this river reach. This is particularly important during the high public recreational use period.

19. The State of New Hampshire certified this project under Section 401 on October 27, 1988, conditional on submittal of erosion control plans (although no construction is proposed at this time).

20. By letter dated July 24, 1989, the applicant filed a report with the Department through John R. Ponsetto, Esq. The report defines the water quality modeling runs performed to date, including recent Qual-2e modeling done using basically the same parameter values used before. No additional field data has been collected to refine the modeling attempts.

CONDITIONS

In certifying that there is a reasonable assurance that project activities will be conducted in a manner that will not violate applicable water quality standards, the Department of Environmental Conservation imposes the following conditions:

A. The project shall be operated in a strict run-of-the-river mode where instantaneous flows below the tailrace are maintained equivalent to instantaneous inflows to the impoundment. The pond level shall be maintained at or within six inches of the top of the flashboards at all times except

where circumstances beyond the control of the applicant occur, such as the loss of flashboards. Under such unusual circumstances, a minimum instantaneous flow of 757 cfs, or instantaneous project inflow, if less, shall be maintained below the tailrace until normal operations are restored. There shall be no impoundment cycling for generation.

A minimum instantaneous flow of 210 cfs shall be spilled at the dam during the period June 1 through October 15 to protect downstream water quality. When the project is not operating, all inflows shall be spilled at the dam.

The applicant shall submit a complete description, hydraulic design calculations, and specifications for the operational procedures and measures to be used to meet this condition. The filing shall be made within six months of the date of this certification and shall be subject to Departmental approval. All necessary modifications shall be instituted within one year of the date of this certification.

B. The impoundment shall not be drawn down for maintenance purposes without prior written approval of the Department.

C. Downstream fish passage facilities, as approved by the Vermont Department of Fish and Wildlife and the U.S. Fish and Wildlife Service, shall be constructed within one year of a request made by those agencies and operated following a schedule determined by the agencies. Flows needed to operate the bypass facility shall be in addition to those spillage flows required in Condition A for water quality. The final plans and approval letters shall be filed with the Department for the record prior to construction of these facilities. Erosion and sediment control and water management plans for the construction of these facilities shall be filed with

the Department for approval. Construction shall not proceed without approval of these plans.

D. Provision of upstream passage facilities, which may consist of participation in the construction and operation of a trap-and-truck facility at a downstream site, shall follow a schedule determined appropriate by the Vermont Department of Fish and Wildlife. Erosion and sediment control and water management plans for the construction of these facilities, if located at Gilman Dam, shall be filed with the Department for approval. Construction shall not proceed without approval of these plans. Plans for a facility at Gilman Dam are subject to the approval of the Vermont Department of Fish and Wildlife, and, in such case, the approval letter and design drawings must be filed with the Department for the record.

E. Debris associated with project operation, including trashrack debris, shall be disposed of properly.

F. Any desilting of the dam impoundment shall be done in accordance with the Agency of Natural Resources *Desilting Policy*, a copy of which is attached. The Department shall be contacted prior to any desilting activity.

G. Any significant changes, including project operation, shall be submitted to the Department for prior review and written approval.

Dated at Waterbury, Vermont this 28th day of July, 1989.

/s/ Timothy J. Burke
TIMOTHY BURKE
Commissioner
Department of
Environmental Conservation

TB:JRC/vld

APPENDIX D

STATUTES INVOLVED

A. RELEVANT PROVISIONS OF THE CLEAN WATER ACT, ALSO KNOWN AS THE FEDERAL WATER POLLUTION CONTROL ACT

1. Section 301 of the Clean Water Act, also known as the Federal Water Pollution Control Act, as codified at 33 U.S.C. § 1311, provides:

> **§ 1311. Effluent limitations**
>
> **(a) Illegality of pollutant discharges except in compliance with law**
>
> Except as in compliance with this section and sections 1312, 1316, 1317, 1328, 1342, and 1344 of this title, the discharge of any pollutant by any person shall be unlawful.
>
> **(b) Timetable for achievement of objectives**
>
> In order to carry out the objective of this chapter there shall be achieved—
>
> (1) (A) not later than July 1, 1977, effluent limitations for point sources, other than publicly owned treatment works, (i) which shall require the application of the best practicable control technology currently available as defined by the Administrator pursuant to section 1314(b) of this title, or (ii) in the case of a discharge into a publicly owned treatment works which meets the requirements of subparagraph (B) of this paragraph, which shall require compliance with any applicable pretreatment requirements and any requirements under section 1317 of this title; and

(B) for publicly owned treatment works in existence on July 1, 1977, or approved pursuant to section 1283 of this title prior to June 30, 1974 (for which construction must be completed within four years of approval), effluent limitations based upon secondary treatment as defined by the Administrator pursuant to section 1314 (d) (1) of this title; or,

(C) not later than July 1, 1977, any more stringent limitation, including those necessary to meet water quality standards, treatment standards, or schedules of compliance, established pursuant to any State law or regulations (under authority preserved by section 1370 of this title) or any other Federal law or regulation, or required to implement any applicable water quality standard established pursuant to this chapter.

(2) (A) for pollutants identified in subparagraphs (C), (D), and (F) of this paragraph, effluent limitations for categories and classes of point sources, other than publicly owned treatment works, which (i) shall require application of the best available technology economically achievable for such category or class, which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as determined in accordance with regulations issued by the Administrator pursuant to section 1314(b) (2) of this title, which such effluent limitations shall require the elimination of discharges of all pollutants if the Administrator finds, on the basis of information available to him (including information developed pursuant to section 1325 of this title), that such elimination is technologically and economically achievable for a category or class of point sources

as determined in accordance with regulations issued by the Administrator pursuant to section 1314(b)(2) of this title, or (ii) in the case of the introduction of a pollutant into a publicly owned treatment works which meets the requirements of subparagraph (B) of this paragraph, shall require compliance with any applicable pretreatment requirements and any other requirement under section 1317 of this title;

(B) Repealed. Pub. L. 97-117, § 21(b), Dec. 29, 1981, 95 Stat. 1632.

(C) with respect to all toxic pollutants referred to in table 1 of the Committee Print Numbered 95-30 of the Committee on Public Works and Transportation of the House of Representatives compliance with effluent limitations in accordance with subparagraph (A) of this paragraph as expeditiously as practicable but in no case later than three years after the date such limitations are promulgated under section 1314 (b) of this title, and in no case later than March 31, 1989;

(D) for all toxic pollutants listed under paragraph (1) of subsection (a) of section 1317 of this title which are not referred to in subparagraph (C) of this paragraph compliance with effluent limitations in accordance with subparagraph (A) of this paragraph as expeditiously as practicable, but in no case later than three years after the date such limitations are promulgated under section 1314(b) of this title, and in no case later than March 31, 1989;

(E) as expeditiously as practicable but in no case later than three years after the date such limitations are promulgated under section 1314

(b) of this title, and in no case later than March 31, 1989, compliance with effluent limitations for categories and classes of point sources, other than publicly owned treatment works, which in the case of pollutants identified pursuant to section 1314(a)(4) of this title shall require application of the best conventional pollutant control technology as determined in accordance with regulations issued by the Administrator pursuant to section 1314(b)(4) of this title; and

(F) for all pollutants (other than those subject to subparagraphs (C), (D), or (E) of this paragraph) compliance with effluent limitations in accordance with subparagraph (A) of this paragraph as expeditiously as practicable but in no case later than 3 years after the date such limitations are established, and in no case later than March 31, 1989.

(3)(A) for effluent limitations under paragraph (1)(A)(i) of this subsection promulgated after January 1, 1982, and requiring a level of control substantially greater or based on fundamentally different control technology than under permits for an industrial category issued before such date, compliance as expeditiously as practicable but in no case later than three years after the date such limitations are promulgated under section 1314(b) of this title, and in no case later than March 31, 1989; and

(B) for any effluent limitation in accordance with paragraph (1)(A)(i), (2)(A)(i), or (2)(E) of this subsection established only on the basis of section 1342(a)(1) of this title in a permit issued after February 4, 1987, compliance as expeditiously as practicable but in no case later than three years after the date such limitations are established, and in no case later than March 31, 1989.

(c) Modification of timetable

The Administrator may modify the requirements of subsection (b) (2) (A) of this section with respect to any point source for which a permit application is filed after July 1, 1977, upon a showing by the owner or operator of such point source satisfactory to the Administrator that such modified requirements (1) will represent the maximum use of technology within the economic capability of the owner or operator; and (2) will result in reasonable further progress toward the elimination of the discharge of pollutants.

(d) Review and revision of effluent limitations

Any effluent limitation required by paragraph (2) of subsection (b) of this section shall be reviewed at least every five years and, if appropriate, revised pursuant to the procedure established under such paragraph.

(e) All point discharge source application of effluent limitations

Effluent limitations established pursuant to this section or section 1312 of this title shall be applied to all point sources of discharge of pollutants in accordance with the provisions of this chapter.

(f) Illegality of discharge of radiological, chemical or biological warfare agents, high-level radioactive waste, or medical waste

Notwithstanding any other provisions of this chapter it shall be unlawful to discharge any radiological, chemical, or biological warfare agent, any high-level radioactive waste, or any medical waste, into the navigable waters.

(g) Modifications for certain nonconventional pollutants

(1) General authority

The Administrator, with the concurrence of the State, may modify the requirements of subsection (b)(2)(A) of this section with respect to the discharge from any point source of ammonia, chlorine, color, iron, and total phenols (4AAP) (when determined by the Administrator to be a pollutant covered by subsection (b)(2)(F) of this section) and any other pollutant which the Administrator lists under paragraph (4) of this subsection.

(2) Requirements for granting modifications

A modification under this subsection shall be granted only upon a showing by the owner or operator of a point source satisfactory to the Administrator that—

(A) such modified requirements will result at a minimum in compliance with the requirements of subsection (b)(1)(A) or (C) of this section, whichever is applicable;

(B) such modified requirements will not result in any additional requirements on any other point or nonpoint source; and

(C) such modification will not interfere with the attainment or maintenance of that water quality which shall assure protection of public water supplies, and the protection and propagation of a balanced population of shellfish, fish, and wildlife, and allow recreational activities, in and on the water and such modification will not result in the discharge of pollutants in quantities which may

reasonably be anticipated to pose an unacceptable risk to human health or the environment because of bioaccumulation, persistency in the environment, acute toxicity, chronic toxicity (including carcinogenicity, mutagenicity or teratogenicity), or synergistic propensities.

(3) Limitation on authority to apply for subsection (c) modification

If an owner or operator of a point source applies for a modification under this subsection with respect to the discharge of any pollutant, such owner or operator shall be eligible to apply for modification under subsection (c) of this section with respect to such pollutant only during the same time period as he is eligible to apply for a modification under this subsection.

(4) Procedures for listing additional pollutants

(A) General authority

Upon petition of any person, the Administrator may add any pollutant to the list of pollutants for which modification under this section is authorized (except for pollutants identified pursuant to section 1314(a)(4) of this title, toxic pollutants subject to section 1317(a) of this title, and the thermal component of discharges) in accordance with the provisions of this paragraph.

(B) Requirements for listing

(i) Sufficient information

The person petitioning for listing of an additional pollutant under this subsection shall submit to the Administrator sufficient information to make the

determinations required by this subparagraph.

(ii) Toxic criteria determination

The Administrator shall determine whether or not the pollutant meets the criteria for listing as a toxic pollutant under section 1317(a) of this title.

(iii) Listing as toxic pollutant

If the Administrator determines that the pollutant meets the criteria for listing as a toxic pollutant under section 1317(a) of this title, the Administrator shall list the pollutant as a toxic pollutant under section 1317(a) of this title.

(iv) Nonconventional criteria determination

If the Administrator determines that the pollutant does not meet the criteria for listing as a toxic pollutant under such section and determines that adequate test methods and sufficient data are available to make the determinations required by paragraph (2) of this subsection with respect to the pollutant, the Administrator shall add the pollutant to the list of pollutants specified in paragraph (1) of this subsection for which modifications are authorized under this subsection.

(C) Requirements for filing of petitions

A petition for listing of a pollutant under this paragraph—

(i) must be filed not later than 270 days after the date of promulgation of an applicable effluent guideline under section 1314 of this title;

(ii) may be filed before promulgation of such guideline; and

(iii) may be filed with an application for a modification under paragraph (1) with respect to the discharge of such pollutant.

(D) Deadline for approval of petition

A decision to add a pollutant to the list of pollutants for which modifications under this subsection are authorized must be made within 270 days after the date of promulgation of an applicable effluent guideline under section 1314 of this title.

(E) Burden of proof

The burden of proof for making the determinations under subparagraph (B) shall be on the petitioner.

(5) Removal of pollutants

The Administrator may remove any pollutant from the list of pollutants for which modifications are authorized under this subsection if the Administrator determines that adequate test methods and sufficient data are no longer available for determining whether or not modifications may be granted with respect to such pollutant under paragraph (2) of this subsection.

(h) Modification of secondary treatment requirements

The Administrator, with the concurrence of the State, may issue a permit under section 1342 of this

title which modifies the requirements of subsection (b)(1)(B) of this section with respect to the discharge of any pollutant from a publicly owned treatment works into marine waters, if the applicant demonstrates to the satisfaction of the Administrator that—

(1) there is an applicable water quality standard specific to the pollutant for which the modification is requested, which has been identified under section 1314(a)(6) of this title;

(2) the discharge of pollutants in accordance with such modified requirements will not interfere, alone or in combination with pollutants from other sources, with the attainment or maintenance of that water quality which assures protection of public water supplies and the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife, and allows recreational activities, in and on the water;

(3) the applicant has established a system for monitoring the impact of such discharge on a representative sample of aquatic biota, to the extent practicable, and the scope of such monitoring is limited to include only those scientific investigations which are necessary to study the effects of the proposed discharge;

(4) such modified requirements will not result in any additional requirements on any other point or nonpoint source;

(5) all applicable pretreatment requirements for sources introducing waste into such treatment works will be enforced;

(6) in the case of any treatment works serving a population of 50,000 or more, with respect

to any toxic pollutant introduced into such works by an industrial discharger for which pollutant there is no applicable pretreatment requirement in effect, sources introducing waste into such works are in compliance with all applicable pretreatment requirements, the applicant will enforce such requirements, and the applicant has in effect a pretreatment program which, in combination with the treatment of discharges from such works, removes the same amount of such pollutant as would be removed if such works were to apply secondary treatment to discharges and if such works had no pretreatment program with respect to such pollutant;

(7) to the extent practicable, the applicant has established a schedule of activities designed to eliminate the entrance of toxic pollutants from nonindustrial sources into such treatment works;

(8) there will be no new or substantially increased discharges from the point source of the pollutant to which the modification applies above that volume of discharge specified in the permit;

(9) the applicant at the time such modification becomes effective will be discharging effluent which has received at least primary or equivalent treatment and which meets the criteria established under section 1314(a)(1) of this title after initial mixing in the waters surrounding or adjacent to the point at which such effluent is discharged.

For the purposes of this subsection the phrase "the discharge of any pollutant into marine waters" refers to a discharge into deep waters of the territorial sea or the waters of the contiguous zone, or into

saline estuarine waters where there is strong tidal movement and other hydrological and geological characteristics which the Administrator determines necessary to allow compliance with paragraph (2) of this subsection, and section 1251(a)(2) of this title. For the purpose of paragraph (9), "primary or equivalent treatment" means treatment by screening, sedimentation, and skimming adequate to remove at least 30 percent of the biological oxygen demanding material and of the suspended solids in the treatment works influent, and disinfection, where appropriate. A municipality which applies secondary treatment shall be eligible to receive a permit pursuant to this subsection which modifies the requirements of subsection (b)(1)(B) of this section with respect to the discharge of any pollutant from any treatment works owned by such municipality into marine waters. No permit issued under this subsection shall authorize the discharge of sewage sludge into marine waters. In order for a permit to be issued under this subsection for the discharge of a pollutant into marine waters, such marine waters must exhibit characteristics assuring that water providing dilution does not contain significant amounts of previously discharged effluent from such treatment works. No permit issued under this subsection shall authorize the discharge of any pollutant into saline estuarine waters which at the time of application do not support a balanced indigenous population of shellfish, fish and wildlife, or allow recreation in and on the waters or which exhibit ambient water quality below applicable water quality standards adopted for the protection of public water supplies, shellfish, fish and wildlife or recreational activities or such other standards necessary to assure support and protection of such uses. The prohibition contained in the preceding sentence shall apply without regard to the presence or absence of a casual relationship between such characteristics and the ap-

plicant's current or proposed discharge. Notwithstanding any other provisions of this subsection, no permit may be issued under this subsection for discharge of a pollutant into the New York Bight Apex consisting of the ocean waters of the Atlantic Ocean westward of 73 degrees 30 minutes west longitude and northward of 40 degrees 10 minutes north latitude.

(i) Municipal time extensions

(1) Where construction is required in order for a planned or existing publicly owned treatment works to achieve limitations under subsection (b)(1)(B) or (b)(1)(C) of this section, but (A) construction cannot be completed within the time required in such subsection, or (B) the United States has failed to make financial assistance under this chapter available in time to achieve such limitations by the time specified in such subsection, the owner or operator of such treatment works may request the Administrator (or if appropriate the State) to issue a permit pursuant to section 1342 of this title or to modify a permit issued pursuant to that section to extend such time for compliance. Any such request shall be filed with the Administrator (or if appropriate the State) within 180 days after February 4, 1987. The Administrator (or if appropriate the State) may grant such request and issue or modify such a permit, which shall contain a schedule of compliance for the publicly owned treatment works based on the earliest date by which such financial assistance will be available from the United States and construction can be completed, but in no event later than July 1, 1988, and shall contain such other terms and conditions, including those necessary to carry out subsections (b) through (g) of section 1281 of this title, section 1317 of this title, and such interim effluent limitations applicable to that treatment works

as the Administrator determines are necessary to carry out the provisions of this chapter.

(2) (A) Where a point source (other than a publicly owned treatment works) will not achieve the requirements of subsections (b) (1) (A) and (b) (1) (C) of this section and—

(i) if a permit issued prior to July 1, 1977, to such point source is based upon a discharge into a publicly owned treatment works; or

(ii) if such point source (other than a publicly owned treatment works) had before July 1, 1977, a contract (enforceable against such point source) to discharge into a publicly owned treatment works; or

(iii) if either an application made before July 1, 1977, for a construction grant under this chapter for a publicly owned treatment works, or engineering or architectural plans or working drawings made before July 1, 1977, for a publicly owned treatment works, show that such point source was to discharge into such publicly owned treatment works,

and such publicly owned treatment works is presently unable to accept such discharge without construction, and in the case of a discharge to an existing publicly owned treatment works, such treatment works has an extension pursuant to paragraph (1) of this subsection, the owner or operator of such point source may request the Administrator (or if appropriate the State) to issue or modify such a permit pursuant to such section 1342 of this title to extend such time for compliance. Any such request shall be filed with the Administrator (or if appropriate the State) within 180 days after December 27, 1977, or the filing of a request by the appropriate publicly owned treatment works under para-

graph (1) of this subsection, whichever is later. If the Administrator (or if appropriate the State) finds that the owner or operator of such point source has acted in good faith, he may grant such request and issue or modify such a permit, which shall contain a schedule of compliance for the point source to achieve the requirements of subsections (b)(1)(A) and (C) of this section and shall contain such other terms and conditions, including pretreatment and interim effluent limitations and water conservation requirements applicable to that point source, as the Administrator determines are necessary to carry out the provisions of this chapter.

(B) No time modification granted by the Administrator (or if appropriate the State) pursuant to paragraph (2)(A) of this subsection shall extend beyond the earliest date practicable for compliance or beyond the date of any extension granted to the appropriate publicly owned treatment works pursuant to paragraph (1) of this subsection, but in no event shall it extend beyond July 1, 1988; and no such time modification shall be granted unless (i) the publicly owned treatment works will be in operation and available to the point source before July 1, 1988, and will meet the requirements of subsections (b)(1)(B) and (C) of this section after receiving the discharge from that point source; and (ii) the point source and the publicly owned treatment works have entered into an enforceable contract requiring the point source to discharge into the publicly owned treatment works, the owner or operator of such point source to pay the costs required under section 1284 of this title, and the publicly owned treatment works to accept the discharge from the point source; and (iii) the permit for such point source requires that point source to meet all requirements under section 1317(a) and (b) of this title during the period of such time modification.

(j) Modification procedures

(1) Any application filed under this section for a modification of the provisions of—

(A) subsection (b)(1)(B) of this section under subsection (h) of this section shall be filed not later that[1] the 365th day which begins after December 29, 1981, except that a publicly owned treatment works which prior to December 31, 1982, had a contractual arrangement to use a portion of the capacity of an ocean outfall operated by another publicly owned treatment works which has applied for or received modification under subsection (h) of this section, may apply for a modification of subsection (h) of this section in its own right not later than 30 days after February 4, 1987;

(B) subsection (b)(2)(A) of this section as it applies to pollutants identified in subsection (b)(2)(F) of this section shall be filed not later than 270 days after the date of promulgation of an applicable effluent guideline under section 1314 of this title or not later than 270 days after December 27, 1977, whichever is later.

(2) Subject to paragraph (3) of this section, any application for a modification filed under subsection (g) of this section shall not operate to stay any requirement under this chapter, unless in the judgment of the Administrator such a stay or the modification sought will not result in the discharge of pollutants in quantities which may reasonably be anticipated to pose an unacceptable risk to human health or the environment because of bioaccumulation, persistency in the environment, acute toxicity, chronic toxicity (including carcinogenicity, mutagen-

[1] So in original. Probably should be "than".

icity, or teratogenicity), or synergistic propensities, and that there is a substantial likelihood that the applicant will succeed on the merits of such application. In the case of an application filed under subsection (g) of this section, the Administrator may condition any stay granted under this paragraph on requiring the filing of a bond or other appropriate security to assure timely compliance with the requirements from which a modification is sought.

(3) COMPLIANCE REQUIREMENTS UNDER SUBSECTION (g).—

(A) EFFECT OF FILING.—An application for a modification under subsection (g) of this section and a petition for listing of a pollutant as a pollutant for which modifications are authorized under such subsection shall not stay the requirement that the person seeking such modification or listing comply with effluent limitations under this chapter for all pollutants not the subject of such application or petition.

(B) EFFECT OF DISAPPROVAL.—Disapproval of an application for a modification under subsection (g) of this section shall not stay the requirement that the person seeking such modification comply with all applicable effluent limitations under this chapter.

(4) DEADLINE FOR SUBSECTION (g) DECISION.—An application for a modification with respect to a pollutant filed under subsection (g) of this section must be approved or disapproved not later than 365 days after the date of such filing; except that in any case in which a petition for listing such pollutant as a pollutant for which modifications are authorized under such subsection is approved, such application must be approved or disapproved not later than 365 days after the date of approval of such petition.

(k) Innovative technology

In the case of any facility subject to a permit under section 1342 of this title which proposes to comply with the requirements of subsection (b)(2)(A) or (b)(2)(E) of this section by replacing existing production capacity with an innovative production process which will result in an effluent reduction significantly greater than that required by the limitation otherwise applicable to such facility and moves toward the national goal of eliminating the discharge of all pollutants, or with the installation of an innovative control technique that has a substantial likelihood for enabling the facility to comply with the applicable effluent limitation by achieving a significantly greater effluent reduction than that required by the applicable effluent limitation and moves toward the national goal of eliminating the discharge of all pollutants, or by achieving the required reduction with an innovative system that has the potential for significantly lower costs than the systems which have been determined by the Administrator to be economically achievable, the Administrator (or the State with an approved program under section 1342 of this title, in consultation with the Administrator) may establish a date for compliance under subsection (b)(2)(A) or (b)(2)(E) of this section no later than two years after the date for compliance with such effluent limitation which would otherwise be applicable under such subsection, if it is also determined that such innovative system has the potential for industrywide application.

(l) Toxic pollutants

Other than as provided in subsection (n) of this section, the Administrator may not modify any requirement of this section as it applies to any spe-

cific pollutant which is on the toxic pollutant list under section 1317(a)(1) of this title.

(m) Modification of effluent limitation requirements for point sources

(1) The Administrator, with the concurrence of the State, may issue a permit under section 1342 of this title which modifies the requirements of subsections (b)(1)(A) and (b)(2)(E) of this section, and of section 1343 of this title, with respect to effluent limitations to the extent such limitations relate to biochemical oxygen demand and pH from discharges by an industrial discharger in such State into deep waters of the territorial seas, if the applicant demonstrates and the Administrator finds that—

(A) the facility for which modification is sought is covered at the time of the enactment of this subsection by National Pollutant Discharge Elimination System permit number CA0005894 or CA0005282;

(B) the energy and environmental costs of meeting such requirements of subsections (b)(1)(A) and (b)(2)(E) of this section and section 1343 of this title exceed by an unreasonable amount the benefits to be obtained, including the objectives of this chapter;

(C) the applicant has established a system for monitoring the impact of such discharges on a representative sample of aquatic biota;

(D) such modified requirements will not result in any additional requirements on any other point or nonpoint source;

(E) there will be no new or substantially increased discharges from the point source of the

pollutant to which the modification applies above that volume of discharge specified in the permit;

(F) the discharge is into waters where there is strong tidal movement and other hydrological and geological characteristics which are necessary to allow compliance with this subsection and section 1251(a)(2) of this title;

(G) the applicant accepts as a condition to the permit a contractual obligation to use funds in the amount required (but not less than $250,000 per year for ten years) for research and development of water pollution control technology, including but not limited to closed cycle technology;

(H) the facts and circumstances present a unique situation which, if relief is granted, will not establish a precedent or the relaxation of the requirements of this chapter applicable to similarly situated discharges; and

(I) no owner or operator of a facility comparable to that of the applicant situated in the United States has demonstrated that it would be put at a competitive disadvantage to the applicant (or the parent company or any subsidiary thereof) as a result of the issuance of a permit under this subsection.

(2) The effluent limitations established under a permit issued under paragraph (1) shall be sufficient to implement the applicable State water quality standards, to assure the protection of public water supplies and protection and propagation of a balanced, indigenous population of shellfish, fish, fauna, wildlife, and other aquatic organisms, and to allow recreational activities in and on the water. In setting such limitaitons, the Administrator shall take into account any seasonal variations and the need

for an adequate margin of safety, considering the lack of essential knowledge concerning the relationship between effluent limitations and water quality and the lack of essential knowledge of the effects of discharges on beneficial uses of the receiving waters.

(3) A permit under this subsection may be issued for a period not to exceed five years, and such a permit may be renewed for one additional period not to exceed five years upon a demonstration by the applicant and a finding by the Administrator at the time of application for any such renewal that the provisions of this subsection are met.

(4) The Administrator may terminate a permit issued under this subsection if the Administrator determines that there has been a decline in ambient water quality of the receiving waters during the period of the permit even if a direct cause and effect relationship cannot be shown: *Provided*, That if the effluent from a source with a permit issued under this subsection is contributing to a decline in ambient water quality of the receiving waters, the Administrator shall terminate such permit.

(n) Fundamentally different factors

(1) General rule

The Administrator, with the concurrence of the State, may establish an alternative requirement under subsection (b)(2) of this section or section 1317(b) of this title for a facility that modifies the requirements of national effluent limitation guidelines or categorical pretreatment standards that would otherwise be applicable to such facility, if the owner or operator of such facility demonstrates to the satisfaction of the Administrator that—

(A) the facility is fundamentally different with respect to the factors (other than cost) specified in section 1314(b) or 1314 (g) of this title and considered by the Administrator in establishing such national effluent limitation guidelines or categorical pretreatment standards;

(B) the application—

(i) is based solely on information and supporting data submitted to the Administrator during the rulemaking for establishment of the applicable national effluent limitation guidelines or categorical pretreatment standard specifically raising the factors that are fundamentally different for such facility; or

(ii) is based on information and supporting data referred to in clause (i) and information and supporting data the applicant did not have a reasonable opportunity to submit during such rulemaking;

(C) the alternative requirement is no less stringent than justified by the fundamental difference; and

(D) the alternative requirement will not result in a non-water quality environmental impact which is markedly more adverse than the impact considered by the Administrator in establishing such national effluent limitation guideline or categorical pretreatment standard.

(2) Time limit for applications

An application for an alternative requirement which modifies the requirements of an effluent

limitation or pretreatment standard under this subsection must be submitted to the Administrator within 180 days after the date on which such limitation or standard is established or revised, as the case may be.

(3) Time limit for decision

The Administrator shall approve or deny by final agency action an application submitted under this subsection within 180 days after the date such application is filed with the Administrator.

(4) Submission of information

The Administrator may allow an applicant under this subsection to submit information and supporting data until the earlier of the date the application is approved or denied or the last day that the Administrator has to approve or deny such application.

(5) Treatment of pending applications

For the purposes of this subsection, an application for an alternative requirement based on fundamentally different factors which is pending on February 4, 1987, shall be treated as having been submitted to the Administrator on the 180th day following February 4, 1987. The applicant may amend the application to take into account the provisions of this subsection.

(6) Effect of submission of application

An application for an alternative requirement under this subsection shall not stay the applicant's obligation to comply with the effluent limitation guideline or categorical pretreatment standard which is the subject of the application.

(7) Effect of denial

If an application for an alternative requirement which modifies the requirements of an effluent limitation or pretreatment standard under this subsection is denied by the Administrator, the applicant must comply with such limitation or standard as established or revised, as the case may be.

(8) Reports

Every 6 months after February 4, 1987, the Administrator shall submit to the Committee on Environment and Public Works of the Senate and the Committee on Public Works and Transportation of the House of Representatives a report on the status of applications for alternative requirements which modify the requirements of effluent limitations under section 1311 or 1314 of this title or any national categorical pretreatment standard under section 1317(b) of this title filed before, on, or after February 4, 1987.

(o) Application fees

The Administrator shall prescribe and collect from each applicant fees reflecting the reasonable administrative costs incurred in reviewing and processing applications for modifications submitted to the Administrator pursuant to subsections (c), (g), (i), (k), (m), and (n) of this section, section 1314(d)(4) of this title, and section 1326(a) of this title. All amounts collected by the Administrator under this subsection shall be deposited into a special fund of the Treasury entitled "Water Permits and Related Services" which shall thereafter be available for appropriation to carry out activities of the Environ-

mental Protection Agency for which such fees were collected.

(p) Modified permit for coal remining operations

(1) In general

Subject to paragraphs (2) through (4) of this subsection, the Administrator, or the State in any case which the State has an approved permit program under section 1342(b) of this title, may issue a permit under section 1342 of this title which modifies the requirements of subsection (b)(2)(A) of this section with respect to the pH level of any pre-existing discharge, and with respect to pre-existing discharges of iron and manganese from the remined area of any coal remining operation or with respect to the pH level or level of iron or manganese in any pre-existing discharge affected by the remining operation. Such modified requirements shall apply the best available technology economically achievable on a case-by-case basis, using best professional judgment, to set specific numerical effluent limitations in each permit.

(2) Limitations

The Administrator or the State may only issue a permit pursuant to paragraph (1) if the applicant demonstrates to the satisfaction of the Administrator or the State, as the case may be, that the coal remining operation will result in the potential for improved water quality from the remining operation but in no event shall such a permit allow the pH level of any discharge, and in no event shall such a permit allow the discharges of iron and manganese, to exceed the levels being discharged from the remined

area before the coal remining operation begins. No discharge from, or affected by, the remining operation shall exceed State water quality standards established under section 1313 of this title.

(3) Definitions

For purposes of this subsection—

(A) Coal remining operation

The term "coal remining operation" means a coal mining operation which begins after February 4, 1987 at a site on which coal mining was conducted before August 3, 1977.

(B) Remined area

The term "remined area" means only that area of any coal remining operation on which coal mining was conducted before August 3, 1977.

(C) Pre-existing discharge

The term "pre-existing discharge" means any discharge at the time of permit application under this subsection.

(4) Applicability of strip mining laws

Nothing in this subsection shall affect the application of the Surface Mining Control and Reclamation Act of 1977 [30 U.S.C. 1201 et seq.] to any coal remining operation, including the application of such Act to suspended solids.

2. Section 302 of the Clean Water Act, also known as the Federal Water Pollution Control Act, as codified at 33 U.S.C. § 1312, provides:

> **§ 1312. Water quality related effluent limitations**
>
> **(a) Establishment**
>
> Whenever, in the judgment of the Administrator or as identified under section 1314(*l*) of this title, discharges of pollutants from a point source or group of point sources, with the application of effluent limitations required under section 1311(b)(2) of this title, would interfere with the attainment or maintenance of that water quality in a specific portion of the navigable waters which shall assure protection of public health, public water supplies, agricultural and industrial uses, and the protection and propagation of a balanced population of shellfish, fish and wildlife, and allow recreational activities in and on the water, effluent limitations (including alternative effluent control strategies) for such point source or sources shall be established which can reasonably be expected to contribute to the attainment or maintenance of such water quality.
>
> **(b) Modifications of effluent limitations**
>
> **(1) Notice and hearing**
>
> Prior to establishment of any effluent limitation pursuant to subsection (a) of this section, the Administrator shall publish such proposed limitation and within 90 days of such publication hold a public hearing.
>
> **(2) Permits**
>
> **(A) No reasonable relationship**
>
> The Administrator, with the concurrence of the State, may issue a permit which

modifies the effluent limitations required by subsection (a) of this section for pollutants other than toxic pollutants if the applicant demonstrates at such hearing that (whether or not technology or other alternative control strategies are available) there is no reasonable relationship between the economic and social costs and the benefits to be obtained (including attainment of the objective of this chapter) from achieving such limitation.

(B) Reasonable progress

The Administrator, with the concurrence of the State, may issue a permit which modifies the effluent limitations required by subsection (a) of this section for toxic pollutants for a single period not to exceed 5 years if the applicant demonstrates to the satisfaction of the Administrator that such modified requirements (i) will represent the maximum degree of control within the economic capability of the owner and operator of the source, and (ii) will result in reasonable further progress beyond the requirements of section 1311(b)(2) of this title toward the requirements of subsection (a) of this section.

(c) Delay in application of other limitations

The establishment of effluent limitations under this section shall not operate to delay the application of any effluent limitation established under section 1311 of this title.

3. Section 303 of the Clean Water Act, also known as the Federal Water Pollution Control Act, as codified at 33 U.S.C. § 1313, provides:

> **§ 1313. Water quality standards and implementation plans**
>
> **(a) Existing water quality standards**
>
> (1) In order to carry out the purpose of this chapter, any water quality standard applicable to interstate waters which was adopted by any State and submitted to, and approved by, or is a waiting approval by, the Administrator pursuant to this Act as in effect immediately prior to October 18, 1972, shall remain in effect unless the Administrator determined that such standard is not consistent with the applicable requirements of this Act as in effect immediately prior to October 18, 1972. If the Administrator makes such a determination he shall, within three months after October 18, 1972, notify the State and specify the changes needed to meet such requirements. If such changes are not adopted by the State within ninety days after the date of such notification, the Administrator shall promulgate such changes in accordance with subsection (b) of this section.
>
> (2) Any State which, before October 18, 1972, has adopted, pursuant to its own law, water quality standards applicable to intrastate waters shall submit such standards to the Administrator within thirty days after October 18, 1972. Each such standard shall remain in effect, in the same manner and to the same extent as any other water quality standard established under this chapter unless the Administrator determines that such standard is inconsistent with the applicable requirements of this Act as in effect immediately prior to October 18, 1972.

If the Administrator makes such a determination he shall not later than the one hundred and twentieth day after the date of submission of such standards, notify the State and specify the changes needed to meet such requirements. If such changes are not adopted by the State within ninety days after such notification, the Administrator shall promulgate such changes in accordance with subsection (b) of this section.

(3) (A) Any State which prior to October 18, 1972, has not adopted pursuant to its own laws water quality standards applicable to intrastate waters shall, not later than one hundred and eighty days after October 18, 1972, adopt and submit such standards to the Administrator.

(B) If the Administrator determines that any such standards are consistent with the applicable requirements of this Act as in effect immediately prior to October 18, 1972, he shall approve such standards.

(C) If the Administrator determines that any such standards are not consistent with the applicable requirements of this Act as in effect immediately prior to October 18, 1972, he shall, not later than the ninetieth day after the date of submission of such standards, notify the State and specify the changes to meet such requirements. If such changes are not adopted by the State within ninety days after the date of notification, the Administrator shall promulgate such standards pursuant to subsection (b) of this section.

(b) Proposed regulations

(1) The Administrator shall promptly prepare and publish proposed regulations setting forth water quality standards for a State in accordance with the

applicable requirements of this Act as in effect immediately prior to October 18, 1972, if—

(A) the State fails to submit water quality standards within the times prescribed in subsection (a) of this section.

(B) a water quality standard submitted by such State under subsection (a) of this section is determined by the Administrator not to be consistent with the applicable requirements of subsection (a) of this section.

(2) The Administrator shall promulgate any water quality standard published in a proposed regulation not later than one hundred and ninety days after the date he publishes any such proposed standard, unless prior to such promulgation, such State has adopted a water quality standard which the Administrator determines to be in accordance with subsection (a) of this section.

(c) Review; revised standards; publication

(1) The Governor of a State or the State water pollution control agency of such State shall from time to time (but at least once each three year period beginning with October 18, 1972) hold public hearings for the purpose of reviewing applicable water quality standards and, as appropriate, modifying and adopting standards. Results of such review shall be made available to the Administrator.

(2)(A) Whenever the State revises or adopts a new standard, such revised or new standard shall be submitted to the Administrator. Such revised or new water quality standard shall consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses. Such standards shall be such as to protect the public health or welfare, enhance the

quality of water and serve the purposes of this chapter. Such standards shall be established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, and also taking into consideration their use and value for navigation.

(B) Whenever a State reviews water quality standards pursuant to paragraph (1) of this subsection, or revises or adopts new standards pursuant to this paragraph, such State shall adopt criteria for all toxic pollutants listed pursuant to section 1317 (a)(1) of this title for which criteria have been published under section 1314(a) of this title, the discharge or presence of which in the affected waters could reasonably be expected to interfere with those designated uses adopted by the State, as necessary to support such designated uses. Such criteria shall be specific numerical criteria for such toxic pollutants. Where such numerical criteria are not available, whenever a State reviews water quality standards pursuant to paragraph (1), or revises or adopts new standards pursuant to this paragraph, such State shall adopt criteria based on biological monitoring or assessment methods consistent with information published pursuant to section 1314(a)(8) of this title. Nothing in this section shall be construed to limit or delay the use of effluent limitations or other permit conditions based on or involving biological monitoring or assessment methods or previously adopted numerical criteria.

(3) If the Administrator, within sixty days after the date of submission of the revised or new standard, determines that such standard meets the requirements of this chapter, such standard shall thereafter be the water quality standard for the applicable waters of that State. If the Administrator

determines that any such revised or new standard is not consistent with the applicable requirements of this chapter, he shall not later than the ninetieth day after the date of submission of such standard notify the State and specify the changes to meet such requirements. If such changes are not adopted by the State within ninety days after the date of notification, the Administrator shall promulgate such standard pursuant to paragraph (4) of this subsection.

(4) The Administrator shall promptly prepare and publish proposed regulations setting forth a revised or new water quality standard for the navigable waters involved—

(A) if a revised or new water quality standard submitted by such State under paragraph (3) of this subsection for such waters is determined by the Administrator not to be consistent with the applicable requirements of this chapter, or

(B) in any case where the Administrator determines that a revised or new standard is necessary to meet the requirements of this chapter.

The Administrator shall promulgate any revised or new standard under this paragraph not later than ninety days after he publishes such proposed standards, unless prior to such promulgation, such State has adopted a revised or new water quality standard which the Administrator determines to be in accordance with this chapter.

(d) Identification of areas with insufficient controls; maximum daily load; certain effluent limitations revision

(1)(A) Each State shall identify those waters within its boundaries for which the effluent limitations required by section 1311(b)(1)(A) and section

1311(b)(1)(B) of this title are not stringent enough to implement any water quality standard applicable to such waters. The State shall establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters.

(B) Each State shall identify those waters or parts thereof within its boundaries for which controls on thermal discharges under section 1311 of this title are not stringent enough to assure protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife.

(C) Each State shall establish for the waters identified in paragraph (1)(A) of this subsection, and in accordance with the priority ranking, the total maximum daily load, for those pollutants which the Administrator identifies under section 1314(a)(2) of this title as suitable for such calculation. Such load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality.

(D) Each State shall estimate for the waters identified in paragraph (1)(B) of this subsection the total maximum daily thermal load required to assure protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife. Such estimates shall take into account the normal water temperatures, flow rates, seasonal variations, existing sources of heat input, and the dissipative capacity of the identified waters or parts thereof. Such estimates shall include a calculation of the maximum heat input that can be made into each such part and shall include a margin of safety which takes into account any lack of knowledge concerning

the development of thermal water quality criteria for such protection and propagation in the identified waters or parts thereof.

(2) Each State shall submit to the Administrator from time to time, with the first such submission not later than one hundred and eighty days after the date of publication of the first identification of pollutants under section 1314(a)(2)(D) of this title, for his approval the waters identified and the loads established under paragraphs (1)(A), (1)(B), (1)(C), and (1)(D) of this subsection. The Administrator shall either approve or disapprove such identification and load not later than thirty days after the date of submission. If the Administrator approves such identification and load, such State shall incorporate them into its current plan under subsection (e) of this section. If the Administrator disapproves such identification and load, he shall not later than thirty days after the date of such disapproval identify such waters in such State and establish such loads for such waters as he determines necessary to implement the water quality standards applicable to such waters and upon such identification and establishment the State shall incorporate them into its current plan under subsection (e) of this section.

(3) For the specific purpose of developing information, each State shall identify all waters within its boundaries which it has not identified under paragraph (1)(A) and (1)(B) of this subsection and estimate for such waters the total maximum daily load with seasonal variations and margins of safety, for those pollutants which the Administrator identifies under section 1314(a)(2) of this title as suitable for such calculation and for thermal discharges, at a level that would assure protection and propagation of a balanced indigenous population of fish, shellfish, and wildlife.

(4) LIMITATIONS ON REVISION OF CERTAIN EFFLUENT LIMITATIONS.—

(A) STANDARD NOT ATTAINED.—For waters identified under paragraph (1)(A) where the applicable water quality standard has not yet been attained, any effluent limitation based on a total maximum daily load or other waste load allocation established under this section may be revised only if (i) the cumulative effect of all such revised effluent limitations based on such total maximum daily load or waste load allocation will assure the attainment of such water quality standard, or (ii) the designated use which is not being attained is removed in accordance with regulations established under this section.

(B) STANDARD ATTAINED.—For waters identified under paragraph (1)(A) where the quality of such waters equals or exceeds levels necessary to protect the designated use for such waters or otherwise required by applicable water quality standards, any effluent limitation based on a total maximum daily load or other waste load allocation established under this section, or any water quality standard established under this section, or any other permitting standard may be revised only if such revision is subject to and consistent with the antidegradation policy established under this section.

(e) Continuing planning process

(1) Each State shall have a continuing planning process approved under paragraph (2) of this subsection which is consistent with this chapter.

(2) Each State shall submit not later than 120 days after October 18, 1972, to the Administrator for his approval a proposed continuing planning

process which is consistent with this chapter. Not later than thirty days after the date of submission of such a process the Administrator shall either approve or disapprove such process. The Administrator shall from time to time review each State's approved planning process for the purpose of insuring that such planning process is at all times consistent with this chapter. The Administrator shall not approve any State permit program under subchapter IV of this chapter for any State which does not have an approved continuing planning process under this section.

(3) The Administrator shall approve any continuing planning process submitted to him under this section which will result in plans for all navigable waters within such State, which include, but are not limited to, the following:

(A) effluent limitations and schedules of compliance at least as stringent as those required by section 1311(b)(1), section 1311(b)(2), section 1316, and section 1317 of this title, and at least as stringent as any requirements contained in any applicable water quality standard in effect under authority of this section;

(B) the incorporation of all elements of any applicable area-wide waste management plans under section 1288 of this title, and applicable basin plans under section 1289 of this title;

(C) total maximum daily load for pollutants in accordance with subsection (d) of this section;

(D) procedures for revision;

(E) adequate authority for intergovernmental cooperation;

(F) adequate implementation, including schedules of compliance, for revised or new water quality standards, under subsection (c) of this section;

(G) controls over the disposition of all residual waste from any water treatment processing;

(H) an inventory and ranking, in order of priority, of needs for construction of waste treatment works required to meet the applicable requirements of sections 1311 and 1312 of this title.

(f) Earlier compliance

Nothing in this section shall be construed to affect any effluent limitation, or schedule of compliance required by any State to be implemented prior to the dates set forth in sections 1311(b)(1) and 1311(b)(2) of this title nor to preclude any State from requiring compliance with any effluent limitation or schedule of compliance at dates earlier than such dates.

(g) Heat standards

Water quality standards relating to heat shall be consistent with the requirements of section 1326 of this title.

(h) Thermal water quality standards

For the purposes of this chapter the term "water quality standards" includes thermal water quality standards.

4. Section 306 of the Clean Water Act, also known as the Federal Water Pollution Control Act, as codified at 33 U.S.C. § 1316, provides:

§ 1316. National standards of performance

(a) Definitions

For purposes of this section:

(1) The term "standard of performance" means a standard for the control of the discharge of pollutants which reflect the greatest degree of effluent reduction which the Administrator determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

(2) The term "new source" means any source, the construction of which is commenced after the publication of proposed regulations prescribing a standard of performance under this section which will be applicable to such source, if such standard is thereafter promulgated in accordance with this section.

(3) The term "source" means any building, structure, facility, or installation from which there is or may be the discharge of pollutants.

(4) The term "owner or operator" means any person who owns, leases, operates, controls, or supervises a source.

(5) The term "construction" means any placement, assembly, or installation of facilities or equipment (including contractual obligations to purchase such facilities or equipment) at the premises where such equipment will be used, including preparation work at such premises.

(b) Categories of sources; Federal standards of performance for new sources

(1) (A) The Administrator shall, within ninety days after October 18, 1972, publish (and from time to time thereafter shall revise) a list of categories of sources, which shall, at the minimum, include:

pulp and paper mills;
paperboard, builders paper and board mills;
meat product and rendering processing;
dairy product processing;
grain mills;
canned and preserved fruits and vegetables processing;
canned and preserved seafood processing;
sugar processing;
textile mills;
cement manufacturing;
feedlots;
electroplating;
organic chemicals manufacturing;
inorganic chemicals manufacturing;
plastic and synthetic materials manufacturing;
soap and detergent manufacturing;
fertilizer manufacturing;
petroleum refining;
iron and steel manufacturing;
nonferrous metals manufacturing;
phosphate manufacturing;
steam electric powerplants;
ferroalloy manufacturing;
leather tanning and finishing;
glass and asbestos manufacturing;
rubber processing; and
timber products processing.

(B) As soon as practicable, but in no case more than one year, after a category of sources is included

in a list under subparagraph (A) of this paragraph, the Administrator shall propose and publish regulations establishing Federal standards of performance for new sources within such category. The Administrator shall afford interested persons an opportunity for written comment on such proposed regulations. After considering such comments, he shall promulgate, within one hundred and twenty days after publication of such proposed regulations, such standards with such adjustments as he deems appropriate. The Administrator shall, from time to time, as technology and alternatives change, revise such standards following the procedure required by this subsection for promulgation of such standards. Standards of performance, or revisions thereof, shall become effective upon promulgation. In establishing or revising Federal standards of performance for new sources under this section, the Administrator shall take into consideration the cost of achieving such effluent reduction, and any non-water quality, environmental impact and energy requirements.

(2) The Administrator may distinguish among classes, types, and sizes within categories of new sources for the purpose of establishing such standards and shall consider the type of process employed (including whether batch or continuous).

(3) The provisions of this section shall apply to any new source owned or operated by the United States.

(c) State enforcement of standards of performance

Each State may develop and submit to the Administrator a procedure under State law for applying and enforcing standards of performance for new sources located in such State. If the Administrator finds that the procedure and the law of any State require the application and enforcement of standards of performance to at least the same extent as re-

quired by this section, such State is authorized to apply and enforce such standards of performance (except with respect to new sources owned or operated by the United States).

(d) Protection from more stringent standards

Notwithstanding any other provision of this chapter, any point source the construction of which is commenced after October 18, 1972, and which is so constructed as to meet all applicable standards of performance shall not be subject to any more stringent standard of performance during a ten-year period beginning on the date of completion of such construction or during the period of depreciation or amortization of such facility for the purposes of section 167 or 169 (or both) of title 26 whichever period ends first.

(e) Illegality of operation of new sources in violation of applicable standards of performance

After the effective date of standards of performance promulgated under this section, it shall be unlawful for any owner or operator of any new source to operate such source in violation of any standard of performance applicable to such source.

5. Section 307 of the Clean Water Act, also known as the Federal Water Pollution Control Act, as codified at 33 U.S.C. § 1317, provides:

§ 1317. Toxic and pretreatment effluent standards

(a) Toxic pollutant list; revision; hearing; promulgation of standards; effective date; consultation

(1) On and after December 27, 1977, the list of toxic pollutants or combination of pollutants subject to this chapter shall consist of those toxic pollutants listed in table 1 of Committee Print Numbered 95-30 of the Committee on Public Works and Transporta-

tion of the House of Representatives, and the Administrator shall publish, not later than the thirtieth day after December 27, 1977, that list. From time to time thereafter, the Administrator may revise such list and the Administrator is authorized to add to or remove from such list any pollutant. The Administrator in publishing any revised list, including the addition or removal of any pollutant from such list, shall take into account toxicity of the pollutant, its persistence, degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms, and the nature and extent of the effect of the toxic pollutant on such organisms. A determination of the Administrator under this paragraph shall be final except that if, on judicial review, such determination was based on arbitrary and capricious action of the Administrator, the Administrator shall make a redetermination.

(2) Each toxic pollutant listed in accordance with paragraph (1) of this subsection shall be subject to effluent limitations resulting from the application of the best available technology economically achievable for the applicable category or class of point sources established in accordance with sections 1311(b)(2)(A) and 1314(b)(2) of this title. The Administrator, in his discretion, may publish in the Federal Register a proposed effluent standard (which may include a prohibition) establishing requirements for a toxic pollutant which, if an effluent limitation is applicable to a class or category of point sources, shall be applicable to such category or class only if such standard imposes more stringent requirements. Such published effluent standard (or prohibition) shall take into account the toxicity of the pollutant, its persistence, degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms and the nature

and extent of the effect of the toxic pollutant on such organisms, and the extent to which effective control is being or may be achieved under other regulatory authority. The Administrator shall allow a period of not less than sixty days following publication of any such proposed effluent standard (or prohibition) for written comment by interested persons on such proposed standard. In addition, if within thirty days of publication of any such proposed effluent standard (or prohibition) any interested person so requests, the Administrator shall hold a public hearing in connection therewith. Such a public hearing shall provide an opportunity for oral and written presentations, such cross-examination as the Administrator determines is appropriate on disputed issues of material fact, and the transcription of a verbatim record which shall be available to the public. After consideration of such comments and any information and material presented at any public hearing held on such proposed standard or prohibition, the Administrator shall promulgate such standard (or prohibition) with such modification as the Administrator finds are justified. Such promulgation by the Administrator shall be made within two hundred and seventy days after publication of proposed standard (or prohibition). Such standard (or prohibition) shall be final except that if, on judicial review, such standard was not based on substantial evidence, the Administrator shall promulgate a revised standard. Effluent limitations shall be established in accordance with sections 1311(b)(2)(A) and 1314(b)(2) of this title for every toxic pollutant referred to in table 1 of Committee Print Numbered 95-30 of the Committee on Public Works and Transportation of the House of Representatives as soon as practicable after December 27, 1977, but no later than July 1, 1980. Such effluent limitations or effluent standards (or prohibitions) shall be established for every other

toxic pollutant listed under paragraph (1) of this subsection as soon as practicable after it is so listed.

(3) Each such effluent standard (or prohibition) shall be reviewed and, if appropriate, revised at least every three years.

(4) Any effluent standard promulgated under this section shall be at that level which the Administrator determines provides an ample margin of safety.

(5) When proposing or promulgating any effluent standard (or prohibition) under this section, the Administrator shall designate the category or categories of sources to which the effluent standard (or prohibition) shall apply. Any disposal of dredged material may be included in such a category of sources after consultation with the Secretary of the Army.

(6) Any effluent standard (or prohibition) established pursuant to this section shall take effect on such date or dates as specified in the order promulgating such standard, but in no case, more than one year from the date of such promulgation. If the Administrator determines that compliance within one year from the date of promulgation is technologically infeasible for a category of sources, the Administrator may establish the effective date of the effluent standard (or prohibition) for such category at the earliest date upon which compliance can be feasibly attained by sources within such category, but in no event more than three years after the date of such promulgation.

(7) Prior to publishing any regulations pursuant to this section the Administrator shall, to the maximum extent practicable within the time provided, consult with appropriate advisory committees, States, independent experts, and Federal departments and agencies.

(b) Pretreatment standards hearing; promulgation; compliance period; revision; application to State and local laws

(1) The Administrator shall, within one hundred and eighty days after October 18, 1972, and from time to time thereafter, publish proposed regulations establishing pretreatment standards for introduction of pollutants into treatment works (as defined in section 1292 of this title) which are publicly owned for those pollutants which are determined not to be susceptible to treatment by such treatment works or which would interfere with the operation of such treatment works. Not later than ninety days after such publication, and after opportunity for public hearing, the Administrator shall promulgate such pretreatment standards. Pretreatment standards under this subsection shall specify a time for compliance not to exceed three years from the date of promulgation and shall be established to prevent the discharge of any pollutant through treatment works (as defined in section 1292 of this title) which are publicly owned, which pollutant interferes with, passes through, or otherwise is incompatible with such works. If, in the case of any toxic pollutant under subsection (a) of this section introduced by a source into a publicly owned treatment works, the treatment by such works removes all or any part of such toxic pollutant and the discharge from such works does not violate that effluent limitation or standard which would be applicable to such toxic pollutant if it were discharged by such source other than through a publicly owned treatment works, and does not prevent sludge use or disposal by such works in accordance with section 1345 of this title, then the pretreatment requirements for the sources actually discharging such toxic pollutant into such publicly owned treatment works may be revised by

the owner or operator of such works to reflect the removal of such toxic pollutant by such works.

(2) The Administrator shall, from time to time, as control technology, processes, operating methods, or other alternatives change, revise such standards following the procedure established by this subsection for promulgation of such standards.

(3) When proposing or promulgating any pretreatment standard under this section, the Administrator shall designate the category or categories of sources to which such standard shall apply.

(4) Nothing in this subsection shall affect any pretreatment requirement established by any State or local law not in conflict with any pretreatment standard established under this subsection.

(c) New sources of pollutants into publicly owned treatment works

In order to insure that any source introducing pollutants into a publicly owned treatment works, which source would be a new source subject to section 1316 of this title if it were to discharge pollutants, will not cause a violation of the effluent limitations established for any such treatment works, the Administrator shall promulgate pretreatment standards for the category of such sources simultaneously with the promulgation of standards of performance under section 1316 of this title for the equivalent category of new sources. Such pretreatment standards shall prevent the discharge of any pollutant into such treatment works, which pollutant may interfere with, pass through, or otherwise be incompatible with such works.

(d) Operation in violation of standards unlawful

After the effective date of any effluent standard or prohibition or pretreatment standard promulgated

under this section, it shall be unlawful for any owner or operator of any source to operate any source in violation of any such effluent standard or prohibition or pretreatment standard.

(e) Compliance date extension for innovative pretreatment systems

In the case of any facility that proposes to comply with the pretreatment standards of subsection (b) of this section by applying an innovative system that meets the requirements of section 1311(k) of this title, the owner or operator of the publicly owned treatment works receiving the treated effluent from such facility may extend the date for compliance with the applicable pretreatment standard established under this section for a period not to exceed 2 years—

(1) if the Administrator determines that the innovative system has the potential for industry-wide application, and

(2) if the Administrator (or the State in consultation with the Administrator, in any case in which the State has a pretreatment program approved by the Administator)—

(A) determines that the proposed extension will not cause the publicly owned treatment works to be in violation of its permit under section 1342 of this title or of section 1345 of this title or to contribute to such a violation, and

(B) concurs with the proposed extension.

6. Section 401 of the Clean Water Act, also known as the Federal Water Pollution Control Act, as codified at 33 U.S.C. § 1341, provides:

§ 1341. Certification

(a) Compliance with applicable requirements; application; procedures; license suspension

(1) Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable water at the point where the discharge originates or will originate, that any such discharge will comply with the applicable provisions of sections 1311, 1312, 1313, 1316, and 1317 of this title. In the case of any such activity for which there is not an applicable effluent limitation or other limitation under section 1311(b) and 1312 of this title, and there is not an applicable standard under sections 1316 and 1317 of this title, the State shall so certify, except that any such certification shall not be deemed to satisfy section 1371(c) of this title. Such State or interstate agency shall establish procedures for public notice in the case of all applications for certification by it and, to the extent it deems appropriate, procedures for public hearings in connection with specific applications. In any case where a State or interstate agency has no authority to give such a certification, such certification shall be from the Administrator. If the State, interstate agency, or Administrator, as the case may be, fails or refuses to act on a request for certification, within a reasonable period of time

(which shall not exceed one year) after receipt of such request, the certification requirements of this subsection shall be waived with respect to such Federal application. No license or permit shall be granted until the certification required by this section has been obtained or has been waived as provided in the preceding sentence. No license or permit shall be granted if certification has been denied by the State, interstate agency, or the Administrator, as the case may be.

(2) Upon receipt of such application and certification the licensing or permitting agency shall immediately notify the Administrator of such application and certification. Whenever such a discharge may affect, as determined by the Administrator, the quality of the waters of any other State, the Administrator within thirty days of the date of notice of application for such Federal license or permit shall so notify such other State, the licensing or permitting agency, and the applicant. If, within sixty days after receipt of such notification, such other State determines that such discharge will affect the quality of its waters so as to violate any water quality requirements in such State, and within such sixty-day period notifies the Administrator and the licensing or permitting agency in writing of its objection to the issuance of such license or permit and requests a public hearing on such objection, the licensing or permitting agency shall hold such a hearing. The Administrator shall at such hearing submit his evaluation and recommendations with respect to any such objection to the licensing or permitting agency. Such agency, based upon the recommendations of such State, the Administrator, and upon any additional evidence, if any, presented to the agency at the hearing, shall condition such license or permit in such manner as may be necessary to insure com-

pliance with applicable water quality requirements. If the imposition of conditions cannot insure such compliance such agency shall not issue such license or permit.

(3) The certification obtained pursuant to paragraph (1) of this subsection with respect to the construction of any facility shall fulfill the requirements of this subsection with respect to certification in connection with any other Federal license or permit required for the operation of such facility unless, after notice to the certifying State, agency, or Administrator, as the case may be, which shall be given by the Federal agency to whom application is made for such operating license or permit, the State, or if appropriate, the interstate agency or the Administrator, notifies such agency within sixty days after receipt of such notice that there is no longer reasonable assurance that there will be compliance with the applicable provisions of sections 1311, 1312, 1313, 1316, and 1317 of this title because of changes since the construction license or permit certification was issued in (A) the construction or operation of the facility, (B) the characteristics of the waters into which such discharge is made, (C) the water quality criteria applicable to such waters or (D) applicable effluent limitations or other requirements. This paragraph shall be inapplicable in any case where the applicant for such operating license or permit has failed to provide the certifying State, or, if appropriate, the interstate agency or the Administrator, with notice of any proposed changes in the construction or operation of the facility with respect to which a construction license or permit has been granted, which changes may result in violation of section 1311, 1312, 1313, 1316, or 1317 of this title.

(4) Prior to the initial operation of any federally licensed or permitted facility or activity which may

result in any discharge into the navigable waters and with respect to which a certification has been obtained pursuant to paragraph (1) of this subsection, which facility or activity is not subject to a Federal operating license or permit, the licensee or permittee shall provide an opportunity for such certifying State, or, if appropriate, the interstate agency or the Administrator to review the manner in which the facility or activity shall be operated or conducted for the purposes of assuring that applicable effluent limitations or other limitations or other applicable water quality requirements will not be violated. Upon notification by the certifying State, or if appropriate, the interstate agency or the Administrator that the operation of any such federally licensed or permitted facility or activity will violate applicable effluent limitations or other limitations or other water quality requirements such Federal agency may, after public hearing, suspend such license or permit. If such license or permit is suspended, it shall remain suspended until notification is received from the certifying State, agency, or Administrator, as the case may be, that there is reasonable assurance that such facility or activity will not violate the applicable provisions of section 1311, 1312, 1313, 1316, or 1317 of this title.

(5) Any Federal license or permit with respect to which a certification has been obtained under paragraph (1) of this subsection may be suspended or revoked by the Federal agency issuing such license or permit upon the entering of a judgment under this chapter that such facility or activity has been operated in violation of the applicable provisions of section 1311, 1312, 1313, 1316, or 1317 of this title.

(6) Except with respect to a permit issued under section 1342 of this title, in any case where actual construction of a facility has been lawfully com-

menced prior to April 3, 1970, no certification shall be required under this subsection for a license or permit issued after April 3, 1970, to operate such facility, except that any such license or permit issued without certification shall terminate April 3, 1973, unless prior to such termination date the person having such license or permit submits to the Federal agency which issued such license or permit a certification and otherwise meets the requirements of this section.

(b) Compliance with other provisions of law setting applicable water quality requirements

Nothing in this section shall be construed to limit the authority of any department or agency pursuant to any other provision of law to require compliance with any applicable water quality requirements. The Administrator shall, upon the request of any Federal department or agency, or State or interstate agency, or applicant, provide, for the purpose of this section, any relevant information on applicable effluent limitations, or other limitations, standards, regulations, or requirements, or water quality criteria, and shall, when requested by any such department or agency or State or interstate agency, or applicant, comment on any methods to comply with such limitations, standards, regulations, requirements, or criteria.

(c) Authority of Secretary of the Army to permit use of spoil disposal areas by Federal licensees or permittees

In order to implement the provisions of this section, the Secretary of the Army, acting through the Chief of Engineers, is authorized, if he deems it to be in the public interest, to permit the use of spoil disposal areas under his jurisdiction by Federal licensees or permitees, and to make an appropriate charge for such use. Moneys received from such li-

censees or permittees shall be deposited in the Treasury as miscellaneous receipts.

(d) Limitations and monitoring requirements of certification

Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations, under section 1311 or 1312 of this title, standard of performance under section 1316 of this title, or prohibition, effluent standard, or pretreatment standard under section 1317 of this title, and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal license or permit subject to the provisions of this section.

7. Section 510 of the Clean Water Act, also known as the Federal Water Pollution Control Act, as codified at 33 U.S.C. § 1370, provides:

§ 1370. State authority

Except as expressly provided in this chapter, nothing in this chapter shall (1) preclude or deny the right of any State or political subdivision thereof or interstate agency to adopt or enforce (A) any standard or limitation respecting discharges of pollutants, or (B) any requirement respecting control or abatement of pollution; except that if an effluent limitation, or other limitation, effluent standard, prohibition, pretreatment standard, or standard of performance is in effect under this chapter, such State or political subdivision or interstate agency may not adopt or enforce any effluent limitation, or other limitation, effluent standard, prohibition, pretreatment stand-

ard, or standard of performance which is less stringent than the effluent limitation, or other limitation, effluent standard, prohibition, pretreatment standard, or standard of performance under this chapter; or (2) be construed as impairing or in any manner affecting any right of jurisdiction of the States with respect to the waters (including boundary waters) of such States.

B. RELEVANT PROVISIONS OF THE FEDERAL POWER ACT

1. Section 4(e) of the Federal Power Act, as codified at 16 U.S.C. § 797(e), provides:

> **§ 797. General Powers of Commission**
>
> The Commission is authorized and empowered—
>
> **(e) Issue of licenses for construction, etc., of dams, conduits, reservoirs, etc.**
>
> To issue licenses to citizens of the United States, or to any association of such citizens, or to any corporation organized under the laws of the United States or any State thereof, or to any State or municipality for the purpose of constructing, operating, and maintaining dams, water conduits, reservoirs, power houses, transmission lines, or other project works necessary or convenient for the development and improvement of navigation and for the development, transmission, and utilization of power across, along, from, or in any of the streams or other bodies of water over which Congress has jurisdiction under its authority to regulate commerce with foreign nations and among the several States, or upon any part of the public lands and reservations of the United States (including the Territories), or for the purpose of utilizing the surplus water or water power from any Government dam, except as herein provided: *Provided*, That licenses shall be issued within any reservation only after a finding by the Commission that the license will not interfere or be inconsistent with the purpose for which such reservation was created or acquired, and shall be subject to and contain such conditions as the Secretary of the department under whose supervision such reservation falls shall deem necessary for the adequate protection and utilization of such reservations: *Pro-*

vided further, That no license affecting the navigable capacity of any navigable waters of the United States shall be issued until the plans of the dam or other structures affecting the navigation have been approved by the Chief of Engineers and the Secretary of the Army. Whenever the contemplated improvement is, in the judgment of the Commission, desirable and justified in the public interest for the purpose of improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, a finding to that effect shall be made by the Commission and shall become a part of the records of the Commission: *Provided further*, That in case the Commission shall find that any Government dam may be advantageously used by the United States for public purposes in addition to navigation, no license therefor shall be issued until two years after it shall have reported to Congress the facts and conditions relating thereto, except that this provision shall not apply to any Government dam constructed prior to June 10, 1920: *And provided further*, That upon the filing of any application for a license which has not been preceded by a preliminary permit under subsection (f) of this section, notice shall be given and published as required by the proviso of said subsection. In deciding whether to issue any license under this subchapter for any project, the Commission, in addition to the power and development purposes for which licenses are issued, shall give equal consideration to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of, fish and wildlife (including related spawning grounds and habitat), the protection of recreational opportunities, and the preservation of other aspects of environmental quality.

2. Section 10(a)(1) of the Federal Power Act, as codified at 16 U.S.C. § 803(a)(1), provides:

> **§ 803. Conditions of license generally**
>
> All licenses issued under this subchapter shall be on the following conditions:
>
> **(a) Modification of plans; factors considered to secure adaptability of project; recommendations for proposed terms and conditions**
>
> (1) That the project adopted, including the maps, plans, and specifications, shall be such as in the judgment of the Commission will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of water-power development, for the adequate protection, mitigation, and enhancement of fish and wildlife (including related spawning grounds and habitat), and for other beneficial public uses, including irrigation, flood control, water supply, and recreational and other purposes referred to in section 797(e) of this title[2] if necessary in order to secure such plan the Commission shall have authority to require the modification of any project and of the plans and specifications of the project works before approval.

3. Section 10(j) of the Federal Power Act, as codified at 16 U.S.C. § 803(j), provides:

> **(j) Fish and wildlife protection, mitigation and enhancement; consideration of recommendations; findings**
>
> (1) That in order to adequately and equitably protect, mitigate damages to, and enhance, fish and

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[2] So in original. Probably should be followed by "; and".

wildlife (including related spawning grounds and habitat) affected by the development, operation, and management of the project, each license issued under this subchapter shall include conditions for such protection, mitigation, and enhancement. Subject to paragraph (2), such conditions shall be based on recommendations received pursuant to the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) from the National Marine Fisheries Service, the United States Fish and Wildlife Service, and State fish and wildlife agencies.

(2) Whenever the Commission believes that any recommendation referred to in paragraph (1) may be inconsistent with the purposes and requirements of this subchapter or other applicable law, the Commission and the agencies referred to in paragraph (1) shall attempt to resolve any such inconsistency, giving due weight to the recommendations, expertise, and statutory responsibilities of such agencies. If, after such attempt, the Commission does not adopt in whole or in part a recommendation of any such agency, the Commission shall publish each of the following findings (together with a statement of the basis for each of the findings):

> (A) A finding that adoption of such recommendation is inconsistent with the purposes and requirements of this subchapter or with other applicable provisions of law.
>
> (B) A finding that the conditions selected by the Commission comply with the requirements of paragraph (1).

Subsection (i) of this section shall not apply to the conditions required under this subsection.

4. Section 15(a)(2)-(3) of the Federal Power Act, as codified at 16 U.S.C. § 808(a)(2)-(3), provides:

> **§ 808. New licenses and renewals**
>
> **(a) Relicensing procedures; terms and conditions; issuance to applicant with proposal best adapted to serve public interest; factors considered**
>
> (2) Any new license issued under this section shall be issued to the applicant having the final proposal which the Commission determines is best adapted to serve the public interest, except that in making this determination the Commission shall ensure that insignificant differences with regard to subparagraphs (A) through (G) of this paragraph between competing applications are not determinative and shall not result in the transfer of a project. In making a determination under this section (whether or not more than one application is submitted for the project), the Commission shall, in addition to the requirements of section 803 of this title, consider (and explain such consideration in writing) each of the following:
>
> (A) The plans and abilities of the applicant to comply with (i) the articles, terms, and conditions of any license issued to it and (ii) other applicable provisions of this subchapter.
>
> (B) The plans of the applicant to manage, operate, and maintain the project safely.
>
> (C) The plans and abilities of the applicant to operate and maintain the project in a manner most likely to provide efficient and reliable electric service.
>
> (D) The need of the applicant over the short and long term for the electricity generated by the project or projects to serve its customers,

including, among other relevant considerations, the reasonable costs and reasonable availability of alternative sources of power, taking into consideration conservation and other relevant factors and taking into consideration the effect on the provider (including its customers) of the alternative source of power, the effect on the applicant's operating and load characteristics, the effect on communities served or to be served by the project, and in the case of an applicant using power for the applicant's own industrial facility and related operations, the effect on the operation and efficiency of such facility or related operations, its workers, and the related community. In the case of an applicant that is an Indian tribe applying for a license for a project located on the tribal reservation, a statement of the need of such tribe for electricity generated by the project to foster the purposes of the reservation may be included.

(E) The existing and planned transmission services of the applicant, taking into consideration system reliability, costs, and other applicable economic and technical factors.

(F) Whether the plans of the applicant will be achieved, to the greatest extent possible, in a cost effective manner.

(G) Such other factors as the Commission may deem relevant, except that the terms and conditions in the license for the protection, mitigation, or enhancement of fish and wildlife resources affected by the development, operation, and management of the project shall be determined in accordance with section 803 of this title, and the plans of an applicant concerning fish and wildlife shall not be subject to a comparative evaluation under this subsection.

(3) In the case of an application by the existing licensee, the Commission shall also take into consideration each of the following:

(A) The existing licensee's record of compliance with the terms and conditions of the existing license.

(B) The actions taken by the existing licensee related to the project which affect the public.